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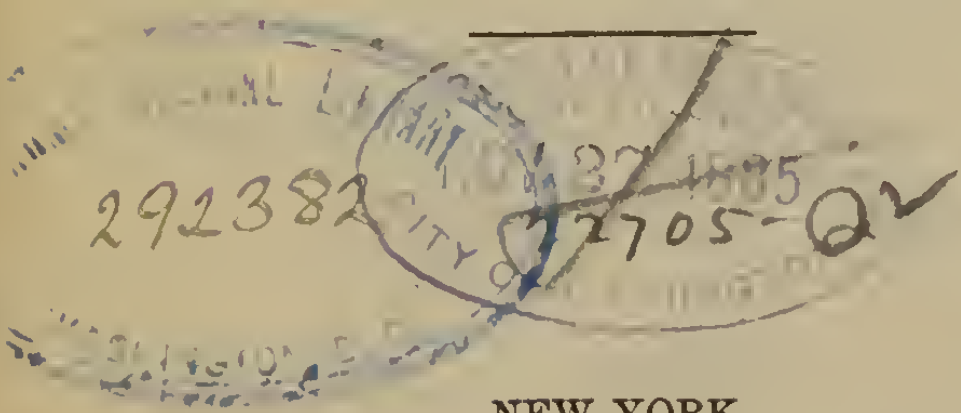
CUTANEOUS MEMORANDA

BY

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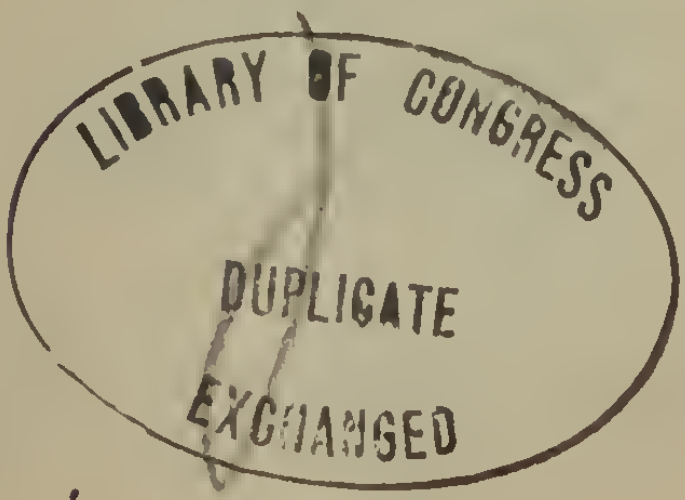
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PREFACE.

THIS is the third edition of the cutaneous portion of the little book entitled Cutaneous and Venereal Memoranda, first published in 1877. It has been re-written and added to both as regards text and illustration.

THE AUTHOR.

NEW YORK, October, 1885.

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CUTANEOUS MEMORANDA.

CHAPTER I.

ANATOMY OF THE SKIN.

THE skin is composed of three principal layers: an external horny layer called the cuticle or *stratum corneum*, composed of flat, dry, non-nucleated cells; a middle mucous layer or *stratum malpighii*, made up of irregularly globular nucleated cells covered with fine projections or *prickles*. The deeper cells of this layer are somewhat cylindrical, and contain pigment, varying in amount in different races of men. These two outer layers constitute the epidermis. Between these two layers there is indeed another, called the *stratum lucidum*, which layer, however, is rarely seen on ordinary microscopical examination. The internal layer, or true skin, called *derma*, *corium* or *cutis vera*, is composed mainly of fibers of connective and yellow elastic tissue, the connective tissue greatly predominating. This latter gives strength to the skin, while

the yellow fibers endow it with elasticity. The outermost portion of the corium is not smooth, but covered with projections called *papillæ*, of varying size and contour. Their structure is the same as that of the corium, but denser. The largest are found on the nipple and the corona glandis, the next in size on the palmar surface of the fingers, while the smallest occur over the general surface of the body.

BLOOD-VESSELS.

The *blood-vessels* of the skin include arteries, veins and capillaries. The arteries proceeding from beneath ramify loosely in the deeper layers of the skin, and give ascending branches, which become capillary and form a second and more superficial plexus, from which again loops extend into some of the papillæ; returning, the capillaries unite to form veins, and as such run along the under surface of the skin, or enter the deeper tissues.

LYMPHATICS.

The *lymphatic* vessels form a plexus in the deeper portions of the derma, from which branches run outwardly forming a

second or superficial plexus, from which again capillary loops are given off to the papillæ.

NERVES.

The *nerves*, branching off from the larger nerve trunks underneath, terminate in the skin in several ways. Some deeply seated end in oval extremities called Pacinian corpuscles, the precise function of which is unknown. Others proceed outwardly, and terminate in the papillæ of the fingers, in bulbous expansions called Meissner's corpuscles. In these resides the special sense of touch. Other fine nerves pass through the papillæ, and terminate among the cells of the stratum malpighii. These latter are the nerves of common sensation. In addition, certain fine fibers are distributed to the blood-vessels, and to certain special organs, as the sweat glands, sebaceous glands, hair-follicles, and muscles.

THE SUDORIPAROUS AND SEBACEOUS GLANDS.

The *sudoriparous* or sweat glands are organs which consist of a tube convoluted into a *glomerulus* or knot at its deeper extremity, but whose free ends pursue a somewhat flex-

uous course outwardly, and passing through the epidermis, open upon the surface. The untwisted tubes have an average length of 6mm. (1-4″). Their number has been estimated at two million, giving, therefore, in aggregate, a length of nearly eight miles of perspiratory tubing. The sweat glands are formed by inversion of the epidermis during fœtal life. The *sebaceous* glands, likewise formed by ante-natal inversion of the epidermis, are of three sorts: *First*, glands of simple structure and insignificant size, occurring as offshoots or appendages of the hair-follicles, into which they open. *Second*, those of more complex structure and larger size, and having rudimentary hairs connected with them, the hair-follicle and gland having a common opening on the surface. *Third*, those which are still more complicated and larger, without hairs, and opening directly upon the surface. The first are found in connection with coarse hair of the head, beard, genitals, etc. The second upon the nose, forehead, cheeks, etc., and the third upon the internal surface of the prepuce, and behind the corona glandis, and upon the nipple, labia minora, and vestibulum vulvæ.

HAIR-FOLLICLES.

The *hair-follicles*, also fœtal involutions of the epidermis, consist of sacs running down from the surface to various depths in the derma and sometimes beneath it. Outwardly they consist of two layers of condensed connective tissue. In the outer layer the fibers have a longitudinal, and in the inner layer a circular direction. Internal to these are two cellular layers, the outer one corresponding to the stratum malpighii, and the inner one to the stratum corneum. These are known as the inner and outer root-sheaths. At the bottom of the follicle is a small projection called the *papilla*.

MUSCLES.

The *muscles* of the skin are of the smooth or unstriped variety. They arise from the walls of the hair-follicle just below the sebaceous gland, and proceed upward in an oblique direction, sometimes bending round the gland, and are inserted into the uppermost portions of the derma, just beneath the papillæ. One, two, or more may be attached to each follicle. Smooth muscular fibers unconnected with hair-follicles are

found in the scrotum, prepuce about the female genitals, the nipples, face, and to a limited extent in other parts.

The APPENDAGES of the skin are the HAIR and NAILS.

THE HAIR.

The *hair* consists of a tapering cylinder partly intra-cutaneous, partly aerial. The portion within the skin, imbedded in the hair-follicle, is called the root. Its deep end is somewhat bulbous, and embraces the papilla of the follicle. Mainly cellular at its deepest portions, the hair soon becomes differentiated into three concentric layers, which are, externally, a layer of flat epithelial cells, next a thick layer of fibers, or very long fusiform cells, and internally a pith or medulla, consisting of nucleated cells. These central cells are often absent in the hair of the head, and are proportionately most developed in the hair of the beard and genitals. The middle or fibrous layer is the seat of the hair pigment, which exists in varying amount on different persons. The hair may be regarded as modified or altered epidermis. It is unnecessary to refer to its peculiarities as regards local distribution, these being familiar to all.

THE NAILS.

The *nails* may also be regarded as altered epidermis. They consist of three layers, a thin external layer of non-nucleated cells, a thick middle layer of nucleated and striated cells, and an internal layer of nucleated and pigmented cells. The deep surface of the nail is not smooth, but possesses ridges and grooves. The former project down into the bed of the nail, while the latter receive linear projections from what corresponds to the papillary portion of the derma. The interlocking of these ridges and grooves account for the firm adherence of the nail to the nail-bed.

CHAPTER II.

PHYSIOLOGY OF THE SKIN.

THE skin serves as the limiting membrane of the body, and as a protection to the organs and tissues beneath it. Its *stratum corneum*, being impervious to fluid, prevents the softer tissues absorbing too much water from a bath, and on the other hand curtails the exhalation of moisture from the surface. A body deprived of the horny layer of the

epidermis would soon desiccate and die. The *sudoriparous* glands regulate the temperature of the organism, and to a certain extent act as excreting organs, removing daily an appreciable amount of urea from the system, together with other organic and inorganic substances. The *sebaceous* glands excrete an unctuous substance called the *sebum*, which serves to lubricate the hairs and skin. The *blood-vessels* and *lymphatics* convey suitable nutriment to the skin, and remove the waste products connected with disassimilation. The *nerves* which terminate upon the blood-vessels regulate the blood supply of the skin; those which are distributed to the sudoriparous and sebaceous glands influence the secretions of these organs; while those which can be traced among the cells of the *stratum malpighii* are nerves of common sensation, and serve to convey to the more central organs the sensations of heat, cold, pain, pressure, etc. On the other hand those which terminate in the *papillæ*, particularly of the fingers, are organs connected with the special sense of *touch*. The skin as a whole must not be regarded as an independent tissue, but as one holding the closest relations with

the rest of the economy, being influenced in great measure by general morbid conditions, and in turn contributing its share, when in a healthy state, to the general well-being of its owner.

CHAPTER III.

PATHOLOGY OF THE SKIN.

UNDER the term Pathology may be embraced a consideration of the pathological *processes* which involve this organ, and also the results of these processes, namely, the *lesions*. The two must not be confounded. The morbid actions, of which the skin is the seat, are in the main the same as occur in other organs, and are usually dependent on modifications of the blood supply or innervation. The two are so intimately associated that it is often difficult, indeed almost impossible, to determine which is primarily affected. Depending on these modifications we have hyperæmia, inflammation, and anæmia; and, secondarily, hypertrophy, exudation, atrophy, or heterology. Beside these we may have functional derangements of the nerves of common sensation,

and of those of special sense. The lymphatics also act an important *rôle*, not yet well understood, in connection with the preservation of the integrity of the cutaneous functions, and, when the seat of primary derangements, are important elements in dermal pathology.

The derangements of one or several of those functions lead to the development of what are called the special *lesions* of the skin. The most important of these are :

Macules,

Papules,

Tubercles,

Vesicles,

Bullæ,

Pustules,

Scales,

Fissures,

Ulcers.

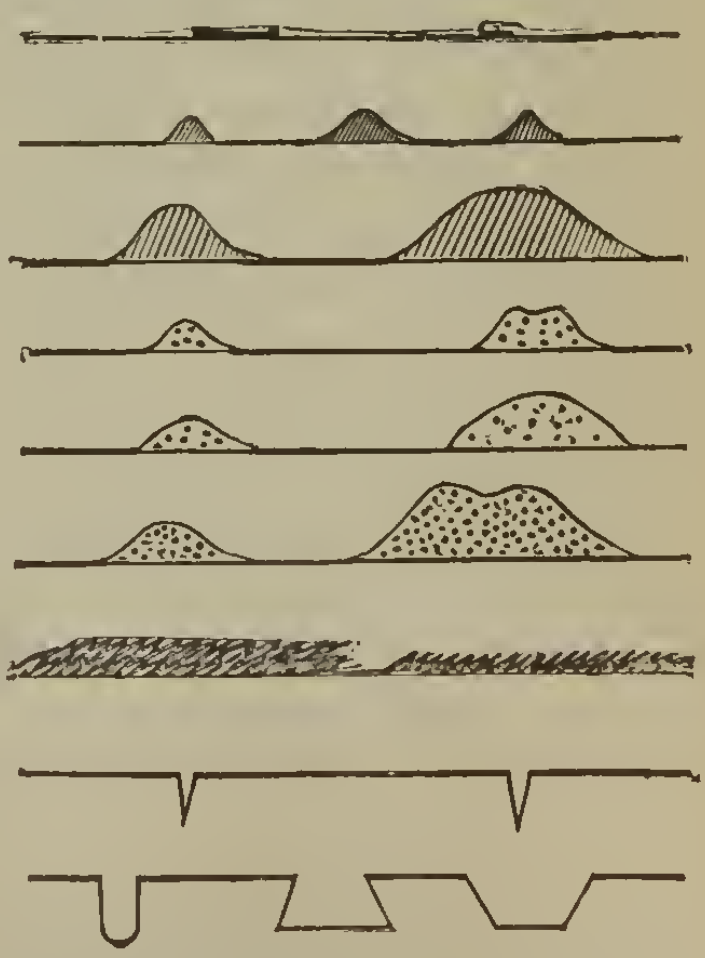


FIG 1.—SCHEME OF THE PRINCIPAL CUTANEOUS LESIONS IN PROFILE.

MACULES are small circumscribed discolorations of the surface, attended with very slight, if any, elevation of the surface, and are dependent upon either congestion, hemorrhage, vascular dilatation, excess or absence of pigment, or the presence of fungi.

PAPULES are small solid elevations of the skin, of varying size, shape and color.

TUBERCLES are likewise solid elevations, of larger size than papules.

VESICLES are elevations of horny epidermis by serous or plasmic fluid, and contain a few leucocytes. They may be acuminate, flat, or umbilicated.

BULLÆ are large vesicles.

PUSTULES are elevations of the epidermis by pus, and may also be acuminate, flat, or umbilicated.

SCALES are collections of cells of the stratum corneum, more or less altered by disease.

FISSURES are linear solutions of continuity, of varying length and depth.

ULCERS are solutions of continuity, of varying depth and outline, with perpendicular, overhanging or sloping edges.

These lesions in various combinations,

together with certain others, secondary and dependent upon them, to be noticed later, constitute the objective features of what is termed a "skin disease." The lesion is not the disease. The disease comprises one or more lesions, with such concomitant phenomena as may stand in a causative relation to the lesion, or may be a result of it. The lesion itself may be an insignificant portion of the difficulty for which the patient seeks relief. This should always be borne in mind.

MACULES are met with in Angioma, Chloasma, Erythema, Ephelis, Rosacea, Leprosy, Morphœa, Nævus, Pellagra, Purpura, Roseola, Scarlatina, Scorbutus, Scrofula, Syphilis, etc.

PAPULES in Acne, Eczema, Lichen, Prurigo, Rubeola, Scabies, Strophulus, Scrofula, Syphilis, Variola, etc.

TUBERCLES in Acne, Keloid, Molluscum, Leprosy, Scrofula, Syphilis, Urticaria, etc.

VESICLES in Eczema, Herpes, Impetigo Contagiosa, Scabies, Syphilis, Sudamina, Variola, Varicella, Zoster, etc.

BULLÆ in Pemphigus, Leprosy, Syphilis, etc.

PUSTULES in Acne, Ecthyma, Eczema,

Furuncles, Glanders, Scrofula, Syphilis, Variola, etc.

Scales in Eczema, Ichthyosis, Pityriasis, Psoriasis, Syphilis, Scrofula, Trichophytosis, etc.

Fissures in Eczema, Leprosy, etc.

Ulcers in Intertrigo, Scrofula, Syphilis, Traumatisms, etc.

The lesions may be termed the objective symptoms or signs of disease; and the student should as soon as possible familiarize himself with their generic features, and then study the modifications which appear in the several affections to which they belong.

CHAPTER IV.

SYMPTOMATOLOGY.

The lesions of the skin may be, and frequently are, accompanied and connected with *general* or *local* abnormal phenomena of a subjective character. The *general* are those which may be embraced under the ordinary name of febrile action, with all that this term implies, namely, malaise, loss of appetite, headache, impaired digestion, in-

creased heat of surface, increased frequency of pulse, etc.

The *local* symptoms are referable to distant organs, or to the skin itself. Disease of other organs may be provocative of skin lesions, and *per contra*, skin lesions may act as causative agents of derangement of other parts. The alimentary canal, the liver, the generative organs, the kidneys, etc., may reflect their irritation to the surface; on the other hand, extensive lesions of the skin may induce important changes in other parts of the economy.

The principle subjective symptoms connected with the skin are Pain, Hyperæsthesia, Anæsthesia, and Pruritus.

Pain is not a frequent accompaniment of cutaneous diseases, and is met with chiefly as a hot or burning sensation in connection with acute inflammations of the skin, or as a neuralgic pain in certain cases of Zoster. If the pain is severe and its cause cannot be readily removed, it must of course be treated symptomatically—that is, by the usual sedatives. The pain accompanying Zoster demands the same treatment that a similar neuralgia would if unaccompanied by eruption.

Hyperæsthesia is the prominent symptom of the affection called Dermatalgia—in fact constitutes its totality so far as symptoms are concerned. It is also encountered in certain cases of Leprosy, and in other affections.

Anæsthesia of the integument is encountered in several affections, which more properly belong to the domain of the neurologist, but is of frequent interest to the dermatologist in connection with Syphilis and Leprosy. The lesser degrees of deviation from normal sensibility, however, are not uncommon in a number of cutaneous affections.

Pruritus.—This is one of the most important of the subjective symptoms accompanying diseases of the skin. It varies in intensity, in duration, and in location. In its mildest degree it may be little more than a pleasurable sensation, while in the severest development it may render life a veritable burden. Its duration may be ephemeral, as when it accompanies a temporary urticaria, or it may last for weeks or months as a prominent symptom of Phthiriasis or Scabies. It may even endure for years as an accompaniment of true Prurigo. It may be

general or localized. The causes of pruritus are various. On the one hand, the trouble may be due to disease of some of the internal viscera, the irritations of which are reflected upon the skin. On the other hand, the cause of the pruritus may be located in the skin itself. In this latter case the cause may be the presence of animal parasites, or the existence of some idiopathic affection of the skin, as an eczema, or a prurigo. As a rule pruritus is worse at night than during the day. In the treatment of this distressing symptom or complication, the ingenuity of the physician will often be taxed to the utmost. The first points are to discover the cause, and to remove it if possible. When the itching accompanies temporary derangement of the liver or uterus, a blue pill or a nervine may accomplish all that is desired; but if it depends upon organic disease of these or other organs, palliatives are frequently our only resource. If the pruritus be sufficiently severe to demand treatment, and the nature of the case precludes expectation of a radical cure, we can sometimes afford marked relief by certain topical means, among which may be mentioned warm baths on retiring, the efficiency of

which may be increased by the addition of an alkali or an emollient, such as carbonate of soda or linseed meal, in the proportion of one pound to 25 gallons of water. A sponge bath of vinegar or borax may also be tried, or, if the pruritus be local, the following anti-pruritic combination may be of service:

℞. Chloral .....
Camphoræ.....āā ʒ j.
Ungt. aq. ros..... ℥ j.

This should never be applied to an excoriated surface, on account of the pain it will produce. In many cases it will have to be used much weaker than the strength above given.

If these means fail, resort must be had to direct sedatives, as opium, hyoscyamus, etc. (Jab.) or the employment of an antipruritic lotion as follows:

℞. Acid. Hydrocyan. dil... ♏xv.—xxx.
Glycerini..... ℥ j.
M. Should not be applied to abraded surfaces.

℞. Tinct. Digitalis ..... ʒ ij.—iv.
Glycerini..... ℥ ss.
Aq. Rosæ ..... ℥ vj.
M.

℞. Aconitiæ..... gr. j.
Ungt..... ʒ j.
M.

℞. Pulv. Gum. Acaciæ.... ʒ ij.
Bals. Peruv..... ʒ j.
Ol. Amygdal..... ʒ jss.
Aq. Rosæ..... ℥ j.
M.

℞. Iodinii ..... gr. vj.
Potassii Iodidi ..... ʒ j.
Alcohol ..... ʒ vj.
Aquæ ..... ℥ j.
M.

℞. Sodii Borat. ..... ʒ iij.
Morph. Mur. ..... gr. xv.
Acid. Hydrocyan. Dil.. ℥ ss.
Glycerini..... ℥ ij.
Aquæ ..... ℥ vss.
M.

℞. Ammonii Carb.,
Plumbi Acet..... āā ʒ j.
Aq. Rosæ..... ℥ viij.
M.

℞. Acid. Hydrocyan. Dil.. ʒ j.
Alcohol ..... ʒ xiv.
Mist. Amygdal. Amar.. ℥ vj.
M.

If itching is caused by vermin it ceases upon their destruction, and when dependent upon eczema, with the disappearance of the eruption.

If the pruritus be at all severe it necessitates scratching, and this is often practiced with such vigor that more or less mechani-

cal wounding of the integument results. Hence, secondary lesions, due to the scratching, are frequently met with, varying in character and intensity. These may collectively be termed "scratch-marks," and consist, in milder cases, of little black points, slightly or not at all elevated. They are produced by the desiccation of a small droplet of blood, the result of a nail wound. If a long scratch has been made, we may find linear ridges of dried blood, and in severe cases excoriations, pustules, and even ulcers. In long-standing pruritus general darkening of the surface may occur. These scratch-marks may be the only visible lesions of the skin, and their cause should be properly appreciated, and carefully distinguished from the idiopathic lesions described in the last chapter.

CHAPTER V.

DIAGNOSIS.

THE importance of a correct diagnosis cannot be overrated; its difficulties, however, have been. The lesion being directly under the eye, a diagnosis should be easier

in this class of affections than in any other, and as a rule it is. All that is necessary is, in the first place, to determine the character of the lesion, *i.e.*, to ascertain whether it is a macule, papule, or pustule, etc. This offers little difficulty. When accomplished, turn to the table on page 12, and see in what diseases the given lesion occurs. If more than one lesion exist, ascertain from the table what diseases present the lesions under notice; and when this is done, carefully read the special descriptions of the diseases themselves. If this plan is systematically followed it will be surprising how soon one may become a good cutaneous diagnostician. It must be remembered, however, that cases sometimes occur which would puzzle the most skillful dermatologist. No pains, however, should be spared in the effort to arrive at a correct diagnosis, as upon this will depend in great measure the sclection of judicious treatment.

CHAPTER VI.

NOMENCLATURE.

Dermatological nomenclature is, unfortunately, in an extremely inchoate condition,

and is the great bugbear of those who give but superficial attention to the subject. Until, however, this matter shall have been subjected to thorough revision by competent authority, we must make the best use we can of the materials at our command. In dermatology we deal with four sets of phenomena, namely, diseases, affections, lesions and symptoms. Naturally a name which is applied to one of these should not be used in connection with either of the others; this has not always been the case, and as a consequence we often find the same name given at one time to a lesion, and at another to a disease. Further, a single name has been applied to different diseases, and a given disease has received several names. In the following pages we shall endeavor to be consistent in this respect, and shall select from among the names proposed those which appear to us most appropriate, and shall add but little to the already overburdened glossary of dermatology. The distinction between a *disease* and an *affection* may be thought too fine, but we will illustrate our idea by a single example: Syphilis is a *disease;* but a macular, papular, or pustular eruption depending upon it is an *affection.*

Lesions and symptoms have already been considered.

CHAPTER VII.

CLASSIFICATION.

THE object of classification in dermatology as in other branches of science, is to enable one to obtain at a glance a comprehensive view of the subject by grouping together the different diseases, according to their several analogies. As the affections of the skin present various kinds of phenomena, such as lesion, pathological process, infiltration, exudation, anatomical location, pruritus, pain, of local or central origin, etc., an equal number of classifications might be devised. All of these various plans might be pursued with advantage, provided their several parts are consistent with each other. No one of them, however, should be exclusively employed. The principal advantages to be gained by classification are, facility in diagnosis and suggestion as to treatment. These two points have not yet been harmonized in a single classification, and from the nature of the subject do not at present appear to be capable of union in a single

scheme. A double classification is therefore advisable, helps us to diagnosis, that is, a naming of the disease under consideration, and is of the first importance.

The classification of Plenck and its modifications, based upon the character of the lesion, attain this to a certain extent; not completely, however, as a given disease, *eczema* for example, is there confined to the class *vesiculæ*. As eczema sometimes presents pustules or papules as its most prominent lesion, the student relying entirely upon Plenckian classifications would often be sadly at fault. As a substitute, therefore, we offer the table upon page 12 and the chapter on Diagnosis as the best guides with which we are acquainted.

A classification, however, based upon the supposed nature of the affections, and indicating their relations to each other, is, it seems to us, the one that should demand the greatest share of attention from those devoting their attention to this class of diseases. A rude attempt of this sort was made a century ago (Lorry, in 1777,) Subsequently, Alibert elaborated a similar scheme. This, at the time owing to certain peculiarities of nomenclature, did not meet

the encouragement which it deserved. From Alibert's time no similar effort was made, until we, a few years ago, attempted to classify the diseases of the skin in the manner indicated. That this plan will have to be modified in many of its details, as our knowledge of cutaneous diseases advances, admits of no doubt. It is not perfect, but it will, we think, prove of assistance to the practitioner in arranging his plan of treatment for any given affection, and it will stimulate research, among those given to such pursuits, for facts substantiating or negativing the propositions we assume. We arrange, therefore, the commoner forms of cutaneous eruptions in the following classes :

Class I. Diathetic affections.
" II. General non-diathetic affections.
" III. Reflex affections.
" IV. Local affections.
" V. Affections of uncertain nature.

By *diathetic* affections we understand such as are the outward manifestations of a general morbid constitutional condition, or diathesis, which diathesis may be hereditary or acquired, and lasts indefinitely or for life.

The *general non-diathetic* affections are those which occur during, or in consequence

of, a general morbid condition, not hereditary, and of temporary duration.

The *reflex* affections are those which depend directly upon nerve lesion, or else occur through the medium of reflex action, as secondary to pre-existing disease or derangement of other organs.

The *local* affections have no direct connection with abnormal conditions of the blood, nerves, or viscera.

The affections of *uncertain nature* are those which we cannot place with any degree of certainty in previous classes.

In assigning the various diseases to these different groups, we have been guided by what seemed to be their probable nature. In many cases the probabilities were so strong as to amount to absolute conviction; in other cases, the weight of probability seemed to be decidedly in favor of the assigned position; while others have been frankly marked doubtful.

CLASS I.

DIATHETIC AFFECTIONS.

RHEUMIDES.

Varieties.

Eczema.

Psoriasis.

SYPHILIDES.

Varieties.

Macular.
Papular.
Tubercular.
Vesicular.
Bullous.
Pustular.
Squamous.

SCROFULIDES.

Varieties.

Erythematous. } Lupus.
Corneous. }
Pustular. }
Tubercular. }
Phlegmonous.
Lichen Scrofulosorum.

LEPROSY.

Varieties.

Macular.
Tubercular.
Anæsthetic.

ICHTHYOSIS.

CLASS II.

GENERAL NON-DIATHETIC AFFECTIONS.

Eruptive Fevers.
Erysipelas.

CLASS III.

REFLEX AFFECTIONS.

Acne.
Comedo.
Rosacea.
Urticaria.
Zoster.
Herpes (labialis, preputialis, etc.).
Xanthoma.
Chloasmata (some).

CLASS IV.

LOCAL AFFECTIONS.

Scabies.
Phthiriasis.
Favus.
Trichophytosis.
Chromophytosis.
Impetigo contagiosa (?).
Alopecia.
Areata (?).
Alopecia.
Lichen Æstivus.
Milium.
Pernio.
Verrucæ.

CLASS V.

Erythema multiforme.
Erythema nodosum.
Elephantiasis (*Arabum*).
Fibroma.
Furuncle.
Keloid.
Lichen planus.
Lichen ruber.
Molluscum.
Pemphigus.
Prurigo.
Purpura.
Scleroderma.
Scleriasis.
Vitiligo.

Concerning the foregoing, it may be proper to make a few remarks. The term Rheumides is applied to the affections which the French embrace under the names dartrous or herpetic. The existence of such a diathesis is denied by some, but the weight of evidence seems to us to be decidedly in its favor. It includes the affections known in this country under the vulgar name "Salt-rheum." The Scrofulides include the affections frequently known un-

der the name of Lupus, together with one or two others.

The second group includes affections which are fully considered in all works upon general medicine. They rarely come under the care of the dermatologist, and will not receive further consideration in this work.

The fifth class unfortunately contains a large number of affections which the present state of science will not permit us to definitely assign to other groups. Their proper positions are problems of the future.

CHAPTER VIII.

THE RHEUMIDES.

The affections embraced in this group are among the most important of any with which we have to deal. Their importance depends upon their frequency and obstinacy. As they undoubtedly, in our judgment, depend upon an internal constitutional cause, it will be expedient to inquire a little into its nature.

The constitutional condition, or diathesis,

to which we have given the name of rheumic, corresponds to the dartrous or herpetic diathesis of the French, and arises, in all probability, from the retention in the blood of certain excrementitious substances, as uric and lactic acids; in fact, the condition is one closely allied to those which are at the root of rheumatism and gout. The trouble arises not so much in the processes of assimilation and nutrition as in those connected with the retrogressive metamorphoses of tissue. Instead of the thorough conversion of waste albuminoid tissues into urea by the process of oxidation, there is partial failure, and as a result, a superabundance of imperfectly oxidized products. These are much less soluble than urea, and although they exist in comparatively small quantity, are not completely eliminated by the kidneys, and hence tend to accumulate unduly in the blood. There are strong reasons, also, for believing that the liver is the organ principally concerned in the conversion of uric acid into urea, and failure on its part to perform its full duty in this respect tends to bring about the condition of things in question. The excess of these excrementa leads to irritation of the skin, and

the production of the special affections which pertain to this diathesis.

Eczema and Psoriasis, which depend upon this diathesis, possess the following features in common:

They are not contagious.

They are frequently general; not, however, by simultaneous invasion of the surface, but by spreading from different foci.

They are frequently symmetrical.

They are usually chronic.

Their natural duration is indefinite.

They are obstinate, and do not yield readily to treatment.

They are frequently observed in several members of the same family.

They are frequently observed in different forms in different generations of a family.

Two or more forms may be present at the same time, or may appear successively.

They do not always preserve their individuality, but sometimes merge one into the other.

Relapses are frequent.

They sometimes alternate with affections of other organs, especially of the pulmonary and gastric mucous membranes, and of the joints.

They itch.

The lesions are always superficial.

They never leave cicatrices.

They are more or less amenable to certain definite methods of treatment, which have little if any effect upon other cutaneous affections.

Treatment.—The treatment of the affections dependent upon this diathesis includes the treatment of the constitutional condition, as well as that of the particular lesions. The former will now be considered; the latter in connection with the affections themselves. Accepting the view that the trouble depends upon an accumulation of certain excreta, our first object is to depurate the blood. This may be effected in three ways, namely: by calling the kidneys, the bowels, or the skin itself into more vigorous action. If the kidneys happen to be diseased, attempts to increase their functional activity should be made with very great caution. If, however, they are in a healthy state, diuretics may be freely employed. Of these, the most useful in our experience are colchicum, caffein, digitalis, and acetate of potassium. If we are unable to depend upon the kidneys, we can fre-

quently attain our object by free catharsis. For this purpose various purgatives are at our command, but the following combination has given us the most satisfaction:

℞. Herb. violæ tricoloris .. ℥ j.
Fol. sennæ..... ℥ ss.
Aq. bullientis.....Oij.
M

Let it stand until cool and then strain; of this the average dose is a tumblerful once or twice a day. It should be given, in quantity sufficient to produce four or five evacuations daily, for two or three days, after which the dose may be diminished. The effect of active purgation with this infusion is, in some cases of eczema, very surprising, and is due in part to the viola, as senna alone will not produce the same good results.

The excretory functions of the skin may be increased by diaphoretics, and especially by hot air or Turkish baths.

It is not alone necessary to remove the excess of excrementitious substances from the blood; they must, if possible, be prevented from forming in undue proportion. This may be accomplished to a certain extent by promoting oxidation; both by in-

creasing the supply of oxygen, and its vehicles, the red blood corpuscles, and by stirring up the liver with hepatic stimulants. These latter agents include mercury in various forms, podophyllin, iris versicolor, leptandra and eupatorium. They may be employed for a consierable time, if given in sufficiently small doses.

As uric and lactic acids, when existing in undue quantity in the blood, tend to diminish the alkalinity of the serum; it will often be expedient to employ alkalies. Of these lithia is probably the most useful. It is well, however, to give with it a little iron for the purpose of keeping up the number of red blood corpuscles which lithia alone, continued for some time, tends to diminish. The following is my usual formula:

℞. Lithii benzoatis.....4. (ʒ i)
Ferri benzoatis.....2. (ʒ ss)
Div. in the Chart No. xxx.
M

S. One powder three times a day, before meals.

CHAPTER IX.

ECZEMA.

THIS, the most frequent and most important of the rheumic affections, commences in several ways and presents different aspects, according to the variety, stage, etc., that come under view.

The varieties depend, first, upon the character of the primitive lesion; second, on the locality; third, on the activity of the process; and fourth, on its duration.

Varieties as to Lesion.—These are five in number: Vesicular, Pustular, Papular, Fissured, and Exfoliative.

The *Vesicular* variety pursues the following course: After a preliminary redness or erythema, more or less localized, minute, closely-aggregated vesicles appear; these last for a day or two, rupture, and cover the surface with their contained fluid, which dries into yellowish crusts. If the crusts are removed, a red eroded surface, exuding moisture, is exposed to view. The fresh secretion dries into crusts as before, and this process continues for a variable period. After a time, however, the secretion dimin-

ishes in amount, and the crusts become thinner until gradually the secretion entirely ceases, and we find a dry red surface covered with fine desquamating scales. These gradually lessen until finally the skin returns to a normal condition. The period of redness and vesiculation is the first stage, that of secretion and crusting the second, while the dryness and desquamation constitute the third.

The *Pustular* variety commences with the development of small closely-packed pustules seated on a reddened base. These soon rupture, and their contents dry into greenish crusts. Removal of the crust exhibits an excoriated surface similar to that in the former variety. The subsequent course of the eruption is the same as that of the vesicular variety.

The *Papular* form is recognized by the appearance of small red papules upon a reddened or sometimes scarcely altered surface. The papules may be discrete or aggregated, at first without much, if any, exudation. By scratching, however, the papules become torn, and give issue to a slight discharge which dries into thin crusts. This condition is maintained for a variable period; at length

the tendency to papulation lessens, and with it the exudation, until finally the last stage of the eruption is indistinguishable from that of the other varieties.

The *Fissured* form is characterized by redness, followed by little fissures or clefts in the epidermis, exuding a certain amount of serous or sero-purulent fluid. After a time the secretion diminishes, then ceases, the fissures close and the surface becomes dry, shiny and scaly, and similar in aspect to that presented by the late stages of the other varieties.

In the *Exfoliative* form we first find active congestion, then exfoliation of the horny layer of the epidermis without formation of vesicles or pustules, and a plentiful exudation drying into yellowish or greenish crusts. The subsequent stages are like those of the vesicular and pustular varieties.

Varieties depending on Location.—These are chiefly eczema of the *scalp*, of the *beard*, of the *genitals*, and of the *hands* and *feet*.

Eczema of the Scalp.—This form is common in children, less frequent in adults. It is usually of the vesicular, pustular, or exfoliative variety. The exudation glues together the hair into masses, which sometimes

attain considerable size, and present a disgusting aspect, especially when they become the home of pediculi, a very frequent accompaniment of eczema in the lower classes, who often fail to observe a requisite



FIG. 2.—ECZEMA OF THE FACE AND SCALP.

degree of cleanliness in their habits. Eczema of the scalp is frequently accompanied with adenitis of the lymphatic glands, situ-

ated upon the neck, back of the posterior border of the sterno-cleido-mastoid. In these glands the inflammatory process may become quite active, with considerable pain and swelling. They rarely suppurate; subcutaneous abscesses of the scalp, however, are not unfrequent in young children, especially during the warmer months.

Eczema of the scalp is frequently associated with eczema of the face, especially in children, and when occupying the latter region exhibits its most characteristic features as shown in Fig. 2.

Eczema of the Beard.—If eczema occupies the region of the beard, the inflammatory process frequently extends to the hair follicles, and the integument between them may become more or less profoundly infiltrated, and accompanied with papules and tubercles. The hairs are sometimes surrounded by small accumulations of pus, and upon extraction the roots are found swollen, and often covered with a thick white membrane, consisting of the inner and outer root-sheaths. This variety frequently becomes chronic, and constitutes one of the varieties of the mentagra, sycosis, or barber's itch of authors. See cut, Fig. 3.

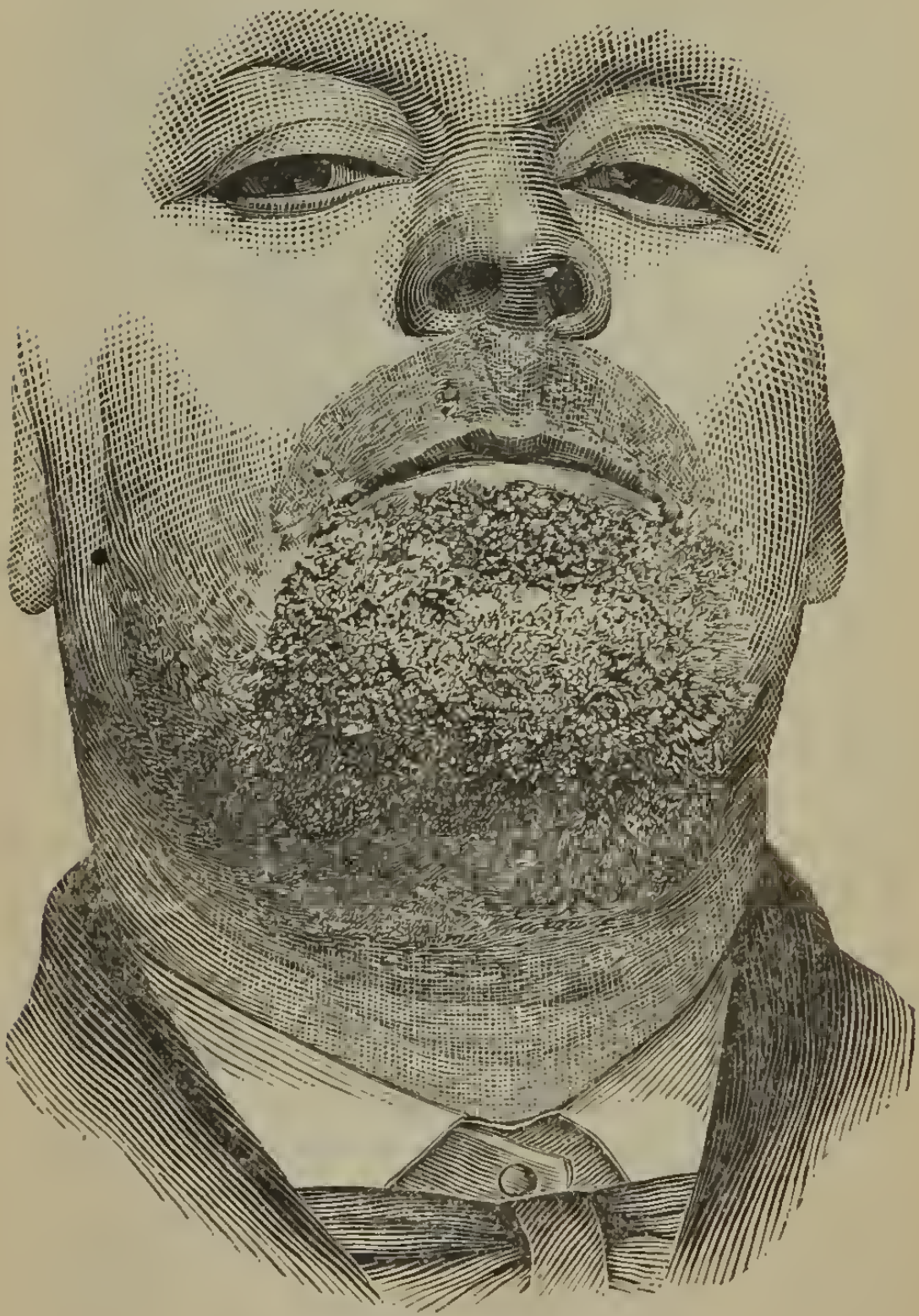


FIG. 3.—ECZEMA BARBÆ.

Eczema of the *genitals* involves the penis, scrotum, perinæum, and vulva. One of the main peculiarities of this variety is the tendency to remain moist even in the absence of much exudation, and when it becomes dry, it is apt, upon the slightest provocation, to resume its former condition.

Eczema of the Hands and Feet.—When the affection attacks the back of the hand or dorsum of the foot, it presents no special peculiarities; but when it appears upon the palmar or plantar surface it is different. In these regions it usually assumes the vesicular, pustular, or fissured form, and the peculiarities which characterize it are due to the great thickness and strength of the epidermis covering these parts. The vesicles may attain considerable size, owing to the inability of the secretion to rupture the thick stratum corneum which confines it. In some cases rupture does not take place at all, but the pus undergoes absorption, and the elevated epidermis finally desquamates. If fissures are a prominent feature, they are both wider and deeper than when situated elsewhere, and usually correspond to the natural lines and furrows of the skin. Only

a slight amount of exudation issues from the clefts, and owing to the frequent ablution of the parts, rarely forms crusts. The third stage is characterized by a dry, polished surface without much scaling, but exhibiting the lines of the skin in an exaggerated manner.

Varieties depending upon the *activity of the process* are *acute* and *subacute*. These names sufficiently indicate the character of the eruption. A given case of eczema, however, does not always preserve the character impressed upon it at the onset; an acute eczema after a time usually becomes subacute, and one that is subacute may at any later period take on an acute action.

The varieties depending upon *duration* are *acute* and *chronic*. When the eruption passes through its second and third stages with commendable rapidity, say in three or four weeks, it may with propriety be termed acute; but if it halts in either of these stages and exhibits a tendency to persist indefinitely, it is called chronic.

Chronic Eczema.—This form may commence with acute or subacute symptoms. In the former case, the eruption, having passed through the first stage, enters the

second, and remains therein for weeks or months, often preserving its acute symptoms throughout; finally it passes to the third stage, and recovery takes place. More frequently, however, it passes through the first and second stages with satisfactory speed; but halts in the third, in which it may persist for years, varying its course by delusive appearances of recovery, or now and again reverting to a former stage.

Chronic eczema may, however, appear without having been preceded by the lesions which characterize the first and second stages of acute eczema; but instead, by a subacute condition from the beginning, marked by a slightly reddened and elevated, sometimes papulated patch, covered with fine, white, non-imbricated, and not very adherent scales.

A feature common to all cases of eczema is *infiltration.* This varies greatly in degree in different cases, being generally most pronounced in cases of long standing.

Subjective Symptoms.—An acute eczema, if at all extensive, may be ushered in by febrile symptoms, which usually abate in a day or two. In the majority of cases no pyrexia is observed. Locally, however, a

good deal of heat is experienced at first, which soon gives way to pruritus. This latter, varying in severity in different cases, may persist throughout the whole course of the eruption, and frequently proves the most annoying feature. The scratching to which it gives rise tends to irritate and aggravate the eruption, and to modify its appearance by the production of secondary lesions.

Diagnosis.—Although eczema is an extremely polymorphic eruption, its diagnosis is, in general, quite easy, provided the student has properly availed himself of the clinical opportunities now provided at most of the American colleges. The examination of a dozen cases will impress upon his mind, far better than anything written, the characteristic features of this affection. In some cases, however, the eruption in the third stage may exhibit little else than a somewhat reddened, infiltrated patch, covered with rather large scales, something like the appearance presented by Psoriasis; or there may be little infiltration and the scales quite small, and it will be hard to distinguish it from Pityriasis. In either case an absolute diagnosis is not important, as the treatment would be substantially the same.

Complications.—Eczema may occur in patients who are scrofulous or syphilitic. In the former case it is apt to present the pustular form; but, in the latter, it presents no special features, except that it rarely becomes chronic. It may also arise in persons predisposed to eczema, as an eruption secondary to scabies, being excited by the irritation accompanying the latter affection. The health of persons suffering from eczema is generally good; but rheumatic, gouty, bronchitic, and gastro-intestinal troubles may sometimes accompany or alternate with the eruption.

Prognosis.—The prognosis is variable, and is to be governed in the main by the length of time the eruption has lasted, and the number of separate attacks the patient has had, and also by the condition of the eruption itself. If this latter be in an acute condition, and has lasted for a short time only, the immediate prognosis is good, and the ultimate prognosis (probability of relapse), will depend much upon the patient's mode of living. If the eruption, however, be of long standing, or if there have been many relapses, both the immediate and ultimate prognoses are more unfavorable.

Treatment.—The treatment of eczema involves a consideration of the diathesis and general condition of the patient, and also of the stage, condition, etc., of the lesion. In other words, it must be both general and local.

General Treatment.—This must be governed by the principles laid down in the last chapter. Hygiene, diet, cathartics, diuretics, hepatics, alkalies, chalybeates, or tonics, must be employed according to the indications furnished by each individual case. Certain other drugs, however, have been found useful. Among these are *Arsenic, Viola Tricolor, Phosphorus* and *Calx Sulphurata.*

Arsenic is useful in both acute and subacute eczema, but in the former should be given in exceedingly small doses, otherwise the irritation will be increased and the patient will appear to be getting worse rather than better. In subacute eczema, on the other hand, the drug may be pushed to the limit of tolerance and maintained at that point for a considerable period, especially when the eruption is of long standing. I greatly prefer arsenious acid in trituration to Fowler's Solution.

Viola tricolor was much in vogue in former times, but later fell into disuse. If given too freely or in too large doses it often aggravates the patient's condition, as evidenced by increased heat, irritation and exudation. In chronic cases this stimulant action is desirable, and is often followed by notable diminution of the eruption. If in any case too much irritation should follow its use, the drug should be suspended for a few days, and subsequently resumed in smaller doses. Viola tricolor is especially useful in eczema of the face and scalp of children. The dose of the fluid extract should not exceed one drop in acute cases, but may be increased to five or ten drops in subacute ones. For adults the doses are proportionately larger.

Phosphorus has been found of decided service in long standing eczema. It may be given in doses of 1-100 to 1-30 of a grain. Larger doses are dangerous, that is if the preparation employed possesses its full activity.

Calx Sulphurata in small doses, from 1-50 to 1-25 of a grain will be found useful in acute cases in children, and in doses of 1-20 to 1-10 in the subacute form. In adults the

doses most useful are from 1-10 gr. to 1-2 gr., according to the acuity of the eruption. It is particularly of value in cases characterized by infiltration.

Local Treatment.—This will depend entirely upon the nature of the lesion. In the first stage sedative lotions, such as a lotion of laudanum and subacetate of lead

℞. Tr. opii.....
Liq. plumbi. subacetatis ....āā ʒ ij.
Aq. rosæ..... ℥ iv.
M

will be of service until the vesicles have fairly ruptured and the stages of exudation and crusts set in. In the *second* stage the *ungt. hydrarg. ammoniati*, to which a little compound tincture of benzoin has been added, will frequently be found the most useful application.

If, however, the eruption is extensive, it is safer to employ the *ungt. zinci. oxid.*, for fear that the mercurial application might produce salivation. If there be much crusting, the crusts should be previously removed with starch (not linseed) poultices. The parts should not be too frequently washed, but when ablution is necessary glycerine should be added to the water (a

tablespoonful to a basin of water), and a perfectly bland soap employed.

A dilute solution of peroxide of hydrogen will sometimes act more promptly and beneficially than any other application, especially if there be much purulent or serous discharge.

In the *third* stage, characterized by dryness and scaling, benefit will be derived from the addition of tar to the ointment mentioned, either the ordinary *ol. picis* or the *ol. cadini*, as in the following formula:

℞. Ol. picis *seu.* ol. cadini. . . . . 3 j.
Ungt. hydrarg. ammon . . . . . 3 vij.
M.

The strong odor of the tar may be masked in a measure by the addition of some essential oil, as rose, bergamot, etc. The ointment, in whatever form it may be used, should be thoroughly applied night and morning.

An excellent convenient method of using tar is to dilute it with four or five parts of turpentine and filter the mixture. The lotion should be thoroughly rubbed into the affected parts night and morning.

This treatment is adapted to cases in which there is not much thickening or infil-

tration of the derma. If these conditions, however, are present, it will be best to precede other treatment by alkaline applications varying in strength with the degree of infiltration. For this purpose a 2% to 5% solution of potash answers very well; or the *sapo viridis* applied with thorough friction may be used.

The *spts. saponatus kalinus*, or the following

℞. Saponis viridis..... ℥ vj.
Ol. picis,
Glycerini .....āā ℥ j.
Ol. rosmarini..... ℥ ss.
Alcohol..... Oj.
M.

may be often advantageously used instead of the simple potash or green soap.

The foregoing embraces the main points connected with the local treatment of eczema, but there are some special matters to which attention should be called. If the scalp be extensively affected, the cure will be hastened by cutting the hair short, as this abolishes the haunts of pediculi, and permits the remedial applications to be made more thoroughly. If the region of the beard be affected, and we have the men-

tagra-form eczema, with pustules surrounding separate hairs, it will be necessary to extract the affected hairs one by one, a task most readily accomplished by means of a pair of properly made forceps specially designed for the purpose, as shown in the cut. (Fig. 4.)

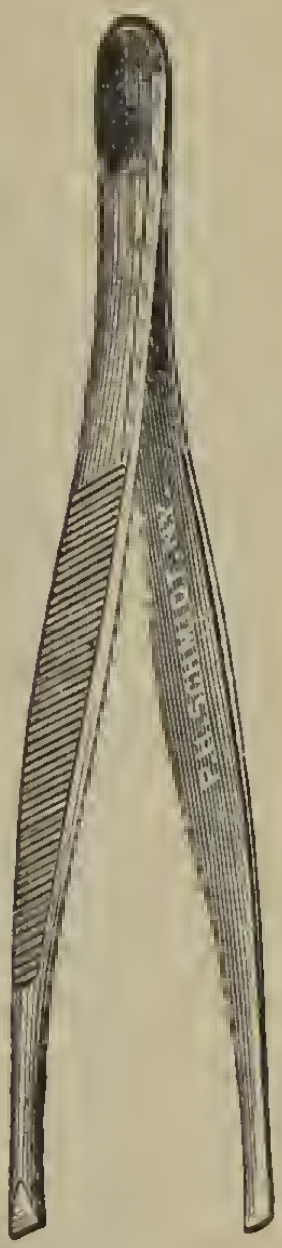


FIG. 4.—EPILATION FORCEPS.

In eczema of the hands and feet, when the epidermis is greatly thickened, it had better be removed mechanically by scraping or rubbing it down with a file or sand-paper, after which the alkalies may be applied. While most eczemas are very amenable to treatment, some cases, happily the minority, will tax to the utmost the patience and skill of the physician.

CHAPTER X.

PSORIASIS.

THIS affection, though not so frequent as eczema, is still one of great importance, insomuch as it is frequently characterized by a degree of obstinacy witnessed in but few other diseases.

It may be described as a constitutional and diathetic affection characterized by patches of infiltrated skin, covered with thick, silvery-white imbricated scales. The patches vary in number, size, configuration, and locality. At the commencement they may be quite small, merely papules covered with a thick white scale, the so-called psoriasis *punctata;* if larger, looking like little drops of wax or plaster, they constitute the P. *guttata.* If still larger, coin-sized, the affection is termed P. *nummulata.* If the patches be joined together, the term P. *diffusa* is applied; and if they cover pretty much all the surface, the expression P. *universalis* is appropriate. The disease may affect any portion of the surface, but its special points of election are the elbows, knees and hips. Upon these and other parts

it frequently exhibits a remarkable degree of symmetry.

Psoriasis rarely attacks the palms of the hands, but as it occasionally does so, the fact should be borne in mind in differentiating it from eczema and syphilis of the hands, which it often greatly resembles.

Course.—The affection, whether scant or extensive, is essentially a chronic affair, and if unrelieved by treatment may last for months or years. Even when caused to disappear by treatment, it is ever ready to relapse upon the slightest or even without any apparent provocation. As a rule it is worse in winter that in summer.

The eruption, having once appeared, is characterized by the patches mentioned. These are always dry, never exhibiting the moisture and discharge, or alternations of dryness and exudation, that occur in eczema. If the scales fall, or are rubbed off, they are quickly renewed, and in two or three days exhibit the condition observed prior to their removal. After this condition has lasted for an indefinite period, retrogressive changes may occur either spontaneously or as a result of treatment. In either case, the desquamation gradually lessens, the size and


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thickness of the scales diminish, the infiltration subsides, and the surface pales, until finally the normal condition is resumed, without leaving mark or sign to indicate the site of the late eruption.

Diagnosis.—In typical cases there is very little difficulty in arriving at a diagnosis. All cases, however, are not typical, and occasionally we find the affection presenting an aspect reminding us of eczema or pityriasis; in these cases an absolute diagnosis is not of great importance, since these three affections are closely allied, and the treatment which would be suitable for one would answer for the other. In certain instances, however, it is a question between psoriasis and syphilis. In these cases the previous history of the patient must be elicited in the most thorough manner, as it will often enable a correct diagnosis to be arrived at when the mere appearance of the lesion would leave one in doubt.

Prognosis.—Psoriasis is never fatal, and rarely interferes with the general health. The chief inconveniences are its persistence, and its tendency to relapse, and thus afflict the patient for many years, and perhaps for life.

Treatment.—Psoriasis is an affection which will certainly try the patience of the sufferer and the skill of the physician more thoroughly than any other among the commoner diseases of the skin. The obstacles to satisfactory results are, in the first place, the difficulty of removing the eruption, and in the second place, the almost certainty of relapse.

The disease requires both internal and external treatment, for while either alone may be sufficient to remove the eruption, this effect is more quickly obtained by their conjunction.

Experience has shown that the two drugs whose internal action is most efficient are Arsenic and Phosphorus.

Arsenic, given in small but gradually increasing doses for a considerable period, or in larger doses for a shorter time, will probably, in the majority of instances, if the patient can take it long enough, remove the eruption. It sometimes, though rarely, aggravates the trouble. If it be used at all, its employment should be thorough, and if a quick cure is desired, the object should be to introduce into the system the greatest possible amount of the drug in the shortest

space of time consistent with due safeguards against the production of too much reactive irritation. It is of course difficult to determine in advance the appropriate dose for any given case; hence it is best to commence with small doses, increased from day to day until conjunctival or gastric irritation, etc., warn the physician that the limit of toleration has been reached. The dose must then be graduated so as to keep just within this limit until the removal of the lesions is effected.

Phosphorus in doses of 1-64 to 1-32 of a grain sometimes removes the eruption with remarkable promptness. Its effects should be carefully watched, and its administration suspended on the slightest indication of gastric intolerance.

In the external treatment of Psoriasis, numerous remedies have been tried, with greater or less success. Almost all of them have been abandoned, however, in favor of Chrysarobin, the value of which in Psoriasis was first made known by Squire. It may be employed in ointment, but better, we think, mixed with collodion. The present writer was the first, he believes, to use it in this manner. Its efficacy, however, is greatly

increased by the addition of salicylic acid, as suggested by Dr. Fox. I usually employ the following formula:

℞. Chrysarobin ..... gr. xxx.
Acid. Salicylici..... gr. xx.
Collodion ..... ℥ i.
M.

This is applied to each of the spots, and the application is repeated every two or three days until the scaling, infiltration and redness have disappeared. Used in this manner it gives rise to very little, if any, irritation around the spots, and the clothing is protected in great measure from stains.

The older treatment by means of tar, green soap, and similar preparations is pretty much abandoned by the leading dermatologists since the advent of the chrysarobin and salicylic collodion.

CHAPTER XI.

SYPHILIS AND THE SYPHILIDES.

It was during the last decade of the fifteenth century that Syphilis first attracted notice. Whether it existed before, and whence it came, are questions which cannot

be definitely answered. Appearing first in southern Europe, it spread rapidly through other portions of the Continent and to the adjacent islands, and soon became recognized as an important and formidable affection, in its symptoms and consequences rivaling leprosy, with which it was later confounded. From that time until the present the disease has continued to exist, and has spread to every country penetrated by the footsteps of civilized man. Although the main features of the disease are the same as those which it presented in the beginning, it has in certain respects been somewhat modified. It is more especially as regards its general severity that we are more fortunate than our predecessors. Although we occasionally find isolated cases which fully realize the descriptions given in the past, they certainly are very rare. As the severe cases of the present day are chiefly those which have been neglected or improperly treated, it is not improbable that these causes were the principal factors concerned in the production of the state of affairs described by the older writers. On the other hand, the comparative mildness of the disease as at present seen is undoubtedly due

to the more general attention and more judicious treatment that it now receives. The wide diffusion of the disease, however, and its ever readiness to assume, under favoring influences, the most malignant and destructive phases, render it worthy of the most serious study. It is in fact the most important of the affections which receive attention in this volume. In consequence of the varied phenomena presented by the disease, we are compelled to consider it from several points of view: more particularly its modes of propagation, its lesions, its course and variations, its diagnosis, prognosis, and treatment.

MODES OF CONTAGION AND PROPAGATION.

Syphilis is usually contracted during sexual intercourse, but this is not the only medium by which it may be propagated; it may be also communicated by kissing, and through vaccination, and by certain unnatural practices. It may also be given by syphilitic wet-nurses to their nurslings, and *vice versa*, as well as by drinking vessels, table utensils, pipes, etc.

Manifestations.—The manifestations of syphilis are so numerous and multiform

that the disease can only be comprehended in its entirety by a careful analysis of its phenomena from several different points of observation. We shall, therefore, consider its lesions and stages, and the tissues and organs liable to be affected.

Lesions.—The principal lesions of syphilis are macules, papules, tubercles, vesicles, bullæ, pustules, gummata, and diffuse infiltrations, and, dependent upon some of the foregoing, ulcerations, crusts and scars. The definitions already given (p. 10) of the lesions met with in non-syphilitic affections of the skin apply equally to those of syphilis. It is necessary, however, to define the term *gumma*, a lesion which plays an exceedingly important part in connection with this disease. The name is applied to certain circumscribed nodules located in the subcutaneous connective tissue, or within the substance of various deeper organs. These nodules consist mainly of collections of closely-packed small round cells which preserve their form and vitality for a certain length of time; but which ultimately become the seat of degenerative processes, and undergo cheesy metamorphoses, or disappear by means of suppuration and ulceration.

These gummata rarely appear in the early stages of syphilis, but as a rule, play their rôle in connection with the later developments of the disease.

Stages.—Three stages of syphilis are usually described, namely, the primary, secondary, and tertiary. We must admit, however, two others, to wit, a stage of incubation, which is present from the time the disease is contracted, and lasts until the appearance of the first visible manifestation of the disease. When this latter, to which the name of *chancre* is given, develops, we have the beginning of the so-called primary stage. This lasts until the appearance of certain general symptoms announce the seconday stage. This is in turn followed by the tertiary; but between the two there is usually a stage or condition characterized by the appearance of lesions which, under the usual definitions, we hesitate to term either strictly secondary or strictly tertiary. To this period the term intermediary may with propriety be applied.

The stage of incubation.—This period varies from two to five weeks, but its usual duration is from three to four weeks. Its commencement dates from the entrance

of the syphilitic virus, but during its continuance there is not the slightest symptom or visible lesion that can be recognized as pertaining to the disease about to be developed. If the contagion gains entrance through an abrasion, this latter heals just the same as it would have done if there had been no inoculation; if the disease is conveyed with vaccination, the vaccine vesicle pursues its early course unmodified. At the end of the period of incubation we find arising at the point where the virus has entered a small, somewhat tawny red, indolent papule. This papule is called a *chancre*, or the initial lesion of syphilis, and marks the commencement of the "primary" stage.

The primary stage.—The papule may in its further course undergo several modifications. If situated upon the skin, as in artificial inoculations, it usually remains as a dry papule over which the stratum corneum is seen tightly stretched, later this layer separates, and is perceived at the summit of the papule as a thin scale. If the tissues lying directly underneath the papule be delicately grasped between the thumb and index finger a certain amount of resistance

is perceived. This resistance is due to the presence of a layer of hard infiltrated tissue constituting the so-called *induration*. The induration may be confined to a lamina not much thicker or stiffer than a piece of parchment, or it may approach the size of a split pea or even the half of a small cherry. It is this induration which constitutes the fundamental characteristic of the true or hard chancre as distinguished from the chancroid. After an uncertain period, varying from two weeks to two months, the chancre undergoes retrogressive changes, which consist in the subsidence of the papule and disappearance of the induration. In many cases of cutaneous chancre the above described course is not strictly followed. The epidermis, instead of remaining as a tense membrane stretched over the papule, gives way, and a superficial ulcer results. The secretion from this ulcer is scanty in amount, and unless irritated contains but little pus.

When the chancre appears upon the mucous surfaces of the penis, it may present the characters of the dry papule above described. More frequently, however, erosion or ulceration occurs, owing to the more delicate

character of the epithelium. When the lesion is situated at the preputial reflexion we not uncommonly find an excessive degree of induration.

When the chancre appears upon the female genitals, it rarely presents more than the slight parchment induration, and sometimes even this is absent or inappreciable. In a very considerable number of cases in females the chancre passes through its various stages and disappears without having awakened the attention of the patient.

Extra-genital chancres, as those situated upon the lips and the mammæ, generally exhibit marked induration.

Chancre is usually painless, unless irritated by excessive venery or other causes. Under these circumstances it may become inflamed and painful, and covered with a free purulent exudation, and be with difficulty distinguished from a chancroid.

Chancre is not, as a rule, inoculable upon a person bearing it, or upon another who is already syphilitic.

Adenitis.—Within a week or ten days after the appearance of the chancre we usually find other symptoms arising which are highly characteristic of syphilis. These

are indolent and indurated tumefactions of certain lymphatic glands. When the chancre is located upon the genitals the inguinal glands are first affected. The increase in size may occur upon one side alone, but more frequently upon both. As a rule, several glands upon each side are involved. They may vary from the size of a hazel-nut to that of a pigeon's egg, and as a rule are painless; more rarely they become inflamed and suppurate after the manner of the chancroidal bubo. The enlargement and induration persist for months, and sometimes for years. In addition, certain ganglia at the back of the neck become affected in the same way, though they rarely attain the size of the glands in the groin. Beside these, certain glands situated above the inner humeric condyle, the so-called epitrochlear or cubital glands, frequently become involved upon one or both sides. When the chancre appears upon the finger in consequence of an accidental inoculation, the cubital glands are first involved, and subsequently the axillary.

Diagnosis of chancre.—When a suspicious sore exhibits the characters peculiar to chancre, and especially marked induration,

together with involvement of the inguinal and post-cervical glands, the diagnosis is effected without difficulty and absolutely. If, however, induration is absent, and ganglionic involvement has not yet occurred, or the sore is inflamed and suppurating, the diagnosis may be exceedingly difficult, in fact, impossible. The special points of differential diagnosis between the chancre and chancroid have already been given.

Secondary stage.—After the primary stage has lasted from one to two months, additional phenomena arise, and usher in the so-called secondary stage. The earlier manifestations of secondary or constitutional syphilis include general febrile action, called syphilitic fever, flat moist papules upon the mucous membranes and the integument surrounding the genital organs, called mucous patches, and a general eruption or efflorescence upon the skin. These symptoms do not always follow each other in the same order, and one or more of them may be absent.

Syphilitic fever.—This is simply a febrile attack more or less sharp, and accompanied with general malaise, gastric disturbance, headache, etc. It usually lasts for a few

days only, and then passes off, and may be quickly followed by the cutaneous eruption. There is nothing distinctive in the character of the fever that will enable it to be recognized as syphilitic except its previous history or subsequent developments. The mucous patches and special eruptions will be considered in subsequent pages. The lesions mentioned, especially the early cutaneous eruption, may disappear spontaneously, to be followed by fresh outbreaks of eruption, in which the lesions present a somewhat graver aspect. The cutaneous trouble may be papular or squamous. As a rule the eruption is extremely superficial, and when it disappears leaves a temporary stain, without scar. During this period, also, the hair may fall out, producing a more or less complete, but also temporary alopecia. The eyes, too, may become involved, and variously situated pains may torment the unfortunate victim.

Intermediate stage.—After the occurrence of various secondary symptoms which have disappeared spontaneously, or have been removed by treatment, it is not uncommon to have a lull lasting a few weeks or months, or even years. During this period we may have

absolutely no symptoms or signs indicative of syphilis; or, perhaps, the occasional appearance of an isolated lesion, which may partake of the superficial character of the usual secondary lesions, or, on the other hand, may be but a foretaste of graver trouble yet to come.

Tertiary stage.—If the disease has not been definitely and permanently arrested in its development during the preceding stages, it may pass on to the condition known as tertiary syphilis. During this period we encounter profound modifications, not only of the superficial, but also of the deeper tissues and organs. The mucous membranes may become involved in extensive and destructive ulceration. The integument becomes the seat of tubercles, pustules, and ulcers, the periosteal membranes inflame, and the bones are affected with caries or necrosis. The vital organs also may become involved in the syphilitic processes. Not only the lungs, liver, intestinal tract, and kidneys, but the nerves, spinal cord, and brain may be invaded, with ultimately a fatal issue.

In the tertiary stage the patient may suffer greatly from debility, and the establishment of a general cachectic condition.

We see, then, from this general review, that syphilis is a disease capable of affecting the entire organism, and often in a disastrous manner; we see that few if any of the tissues or organs are exempt from its ravages, and we are forced to the conclusion that it is a disease which invites our earnest attention and most careful consideration. To gain a proper comprehension of its varied character we must study it from several points of view, and we will commence with its effects upon the different tissues.

Syphilis of the mucous membranes.—The first visible manifestation of syphilis upon the mucous membranes is the chancre. This we have already considered. Next comes the moist flat papule or "mucous patch." This lesion may appear upon the mucous membranes of the genitals of both sexes, and upon neighboring integument; upon the lips, tongue, soft palate, tonsils, and pharynx, and in fact any portion of the buccal and nasal cavities. It has also been met with in the external auditory canal, and upon the palpebral conjunctiva. This lesion consists of a flat elevation, varying from the size of a split pea to that of a dime or even larger. Its elevation is usually from $\frac{1}{25}$"-

$\frac{1}{6}''$ Its surface is moist, finely granular, and of a grayish aspect. It is usually one of the first of the earlier manifestations of constitutional disease. Subsequent to the appearance of mucous patches, or sometimes preceding them, we may find diffuse congestions of the mucous membranes of the fauces and neighborhood, accompanied with a certain amount of irritation and uncomfortable sensation. This condition constitutes the early "sore throat" of syphilis. This same diffuse congestion may invade the mucous membranes of the epiglottis, the glottis, and the larynx. When it does so more or less hoarseness and even complete aphonia may be present.

Beside these, and later on in the disease, we are liable to encounter another peculiar lesion. This may be described as a localized opaline or milk-white spot situated upon the tongue or buccal membrane. These milk-spots are barely if at all elevated, and usually not eroded. A single spot may appear or several may be present at the same time. When one is cured another crops out, and a succession of them not unfrequently show themselves throughout the secondary and intermediate periods, and may consti-

tute the only visible manifestations of the disease. The use of tobacco and negligence in the care of the teeth encourage these lesions. In the later stages still more serious affections of the mucous membranes are liable to appear, such as ulcerations about the genitals, mouth, nose, pharynx, larynx, etc.

Syphilis of the skin.—To the cutaneous manifestations of syphilis the names *syphilodermata* and *syphilides* have been applied. We prefer the latter term.

Although the different syphilides vary greatly in their aspect, lesions, and course, they still possess certain common characteristics. These are *color*, *configuration*, and *the absence of local subjective symptoms.*

Color.—The *color* of the syphilides has been likened to that of copper, or of raw ham, but neither resembles it exactly; it is a color *sui generis*, and peculiar to syphilis, which must be seen to be exactly appreciated, and is not counterfeited by non-syphilitic affections of the skin, though sometimes closely approached in certain cases of psoriasis, lichen planus, and lupus.

Configuration.—The earlier syphilides are usually composed of small lesions widely

diffused; the latter, of larger ones, more sparsely distributed. The earlier ones involving the skin but superficially, recover without leaving cicatrices; the later ones invading more deeply often exhibit a tendency to ulceration with consequent scarring, but cicatrices may result even without ulceration. The marks left by the later syphilides are usually brown, but subsequently become white, whiter even than the normal skin. The pigment is first removed from the center of the spot, and later forms a ring around it just before its final disappearance. The white spot is thinner than the normal skin, is non-adherent and quite smooth, without the irregularities and puckerings met with in scrofulous scars.

The syphilides frequently exhibit a tendency to assume a circular arrangement. If the eruption consists of small lesions, they will often be grouped in round or oval patches, and if of large and isolated lesions, the same tendency will be noticed. A few rounded groups of pustules may be the only manifestation present. The tendency of these, unchecked by treatment, is to extend centrifugally, healing in the center, and in this way we may have a suppurating, per-

haps ulcerating ring inclosing an area of discolored skin on its way to cicatricial degeneration. If the lesion be an isolated ulcer, it is usually round or oval, with perpendicular sides and a grayish base, the margins not irregular and undermined as in some other forms of ulceration. This circular configuration is observed in but few of the non-specific eruptions.

Absence of local subjective symptoms.—The syphilides, both early and late, are characterized by the absence of itching and pain. The most extreme generalized eruptions of early syphilis are as a rule free from pruritus and wide-spread ulceration, and if it involves the skin only is unattended with pain. The different syphilides present certain special peculiarities which we will now consider.

The further study of these affections will be facilitated by arranging or classifying them according to their predominant lesions, as indicated upon p. 11.

Macular Syphilide.—This is the earliest eruption of syphilis, and usually makes its appearance within the first or second month after the development of the chancre. It consists of small red spots, from $\frac{1}{16}''$ to $\frac{1}{4}''$

in diameter, scattered over the thorax, abdomen, back, and upper extremities. The macules may be discrete or confluent, and are usually upon a level with the surrounding skin, but are sometimes slightly raised. At first the color is rosy and disappears under pressure, but later becomes somewhat darker and permanent. The eruption usually lasts from four to eight weeks and subsides spontaneously.

Papular Syphilide.—This form sometimes occurs by itself, at other times accompanies, or appears just at the decline of the last-mentioned variety. It consists of acuminate or flattened elevations frequently decked with a minute scale. These papules persist for a few weeks, and then disappear, or while still existing, may be complicated with much larger papules, in fact, tubercles. The papules proper exhibit no tendency to ulcerate, but slowly subside, leaving after them a small brownish macule, which soon fades away without leaving any perceptible alteration of the skin.

Tubercular Syphilide.—This variety, as its name implies, is an eruption consisting of tubercles, ranging in size from a pea to a hazel-nut. Their summits are usually cov-

ered with a few fine scales. They may appear as an early or as a late manifestation. In the former case, they occur as isolated lesions disseminated over the surface; but when occurring later, they are frequently associated in circumscribed groups. The tubercles disappear by absorption or by ulceration, in either case leaving a brownish mark behind, and a more or less evident cicatrix as an ultimate condition. When they ulcerate they become covered with a greenish or greenish-black crust underneath which lies the ulcer. This form of eruption is not infrequent, but is more commonly met with in cases of neglected syphilis than in those which have received careful and appropriate early treatment. It is usually a late lesion.

Vesicular Syphilide.—This is a rare lesion belonging to the secondary period, and usually consists of moderate-sized vesicles, scattered irregularly over the surface, or collected in little groups. Each vesicle is surrounded by a coppery areola; they break in a few days, and are replaced by thin crusts or scales. When the crusts are removed the surface beneath them is brownish red. This form of eruption usually lasts several months, and is maintained during this period

by successive crops of new vesicles. The lesion is quite superficial, on involving the skin very deeply, but generally leaves brownish macules, which take some time to fade away. Occasionally, small vesicles develop upon the summits of papules in connection with the early papular lesions.

Bullous Syphilide.—This is an exceedingly rare lesion in adults, but is quite common as a manifestation of hereditary syphilis in infants. It consists of large vesicles or bullæ appearing shortly after birth, whose favorite seat is the hands and feet, but they may also appear upon the trunk and limbs. It is the so-called syphilitic pemphigus of infants.

Pustular Syphilide.—Pustules occurring in connection with syphilis present several varieties, as regards their aspect, course and termination, and are among the most important of the cutaneous lesions met with in this disease. They occur under three principal forms.

The first consists of small pustules disseminated over the surface, frequently in great number. Each pustule is found to rest upon a hard and raised base, as if the upper half of a papule had changed into a pustule. A

hair frequently runs through its center. The course of these pustules is usually indolent; each one, after lasting two or three weeks, bursts, and its contents dry into thin greenish crusts which adhere for a week or two longer. Upon the falling or removal of the crusts we find a coppery papule with a depressed and perhaps ulcerated summit. The papule slowly disappears, leaving behind a brown macule, which in turn gives place to a minute white cicatrix. This form of eruption is so-called syphilitic acne.

In the second variety we find the pustules larger than the foregoing, and without the raised base, and as a rule less numerous. They are surrounded with a tawny areola, without marked induration. The pustules soon break, and their contents dry in greenish or sometimes dark crusts; upon the removal of the crusts superficial circular ulcerations will be discovered. These heal readily, but always leave cicatrices. The eruption may persist for several months, being prolonged by the occurrence of fresh pustules. It usually appears during the latter portion of the secondary period, and may occur upon any portion of the cutaneous surface, including the scalp. This form is the syphilitic ecthyma of authors.

A third variety of pustule is met with occurring in the tertiary stages of syphilis. They are large, isolated, and scattered over the surface, and vary in number from a single one to thirty or forty. These pustules contain a mixture of pus and sanious fluid, and soon dry into thick, dark-colored crusts, covering a deep ulcer. The ulcer gradually enlarges and continues to secrete an ichorous and unhealthy pus, which likewise dries into a crust having a greater diameter than the first one, which, still adhering, it pushes before it. This process continues, new crusts form, pushing forward the earlier ones, until in time we have a stratified cone, half an inch or more in height, projecting from the surface, upon the removal of which a deep ulcer with abrupt margins and an unhealthy base is perceived. If the progress of the eruption is unchecked, a fresh crust, possessing the characters of the former, soon forms, the ulcer meanwhile steadily enlarging. This form of eruption is sometimes called rupia.

Squamous Syphilis.—We have already noticed the fact that papular and tubercular lesions frequently exhibit scales in connection with them. In some cases this com-

mingling of characters is so decided that it is hard to say which predominates, or even to recognize the pre-existing lesions. These mixed forms may with propriety be termed papulo- or tuberculo-squamous. In addition to these, however, we may have lesions which are decidedly scaly from the beginning. These true squamous syphilides consist of brownish-red patches, covered with a thin coating of scales. The patches are usually rounded or annular, forming circles, or segments of circles and are very slightly elevated above the surrounding surface. The scales which cover them are of moderate size, but not imbricated, but do not form very thick layers. Usually they do not completely cover the coppery base, but permit a little rim of it to appear at the edge. The scaly syphilide may appear upon any portion of the surface, frequently invading the scalp. It may also occur upon the palm of the hand and sole of the foot.

Diagnosis of Syphilis.— Under ordinary circumstances and in the majority of cases, the diagnosis of syphilis is comparatively easy.

The *chancre* or first manifestation of the

disease, is to be distinguished from *chancroid*. *Mucous patches*, whether occurring about the genitals, the anus, or the mouth, can hardly be mistaken for anything else, especially if the inguinal and post-cervical glands are enlarged, and a chancre has preexisted. It must be remembered, however, that in females a large proportion, if not a majority, of chancres pursue their course without attracting the attention of the patient. In many cases, too, their previous existence will be denied. The various cutaneous manifestations of the disease are to be distinguished from non-specific eruptions by their color, configuration, distribution, previous history, etc. If proper attention has been paid to their peculiarities at the clinic, little difficulty will in general be experienced, as there are but three or four non-syphilitic affections that are likely to be closely counterfeited. Syphilitic roseola may in many cases be indistinguishable from simple roseola (rötheln) in its objective aspects. The history, however, and the course of the eruption will usually assist the diagnosis. Lichen planus sometimes very closely resembles a papular syphilide, so closely indeed that even an expert may be in doubt.

The diagnosis between a *squamous* syphilide and certain not very typical forms of *psoriasis* is also sometimes difficult. When the eye cannot decide our recourse is to the history. The squamous syphilide has probably been preceded during a year or two by other eruptions differing from it in character; psoriasis, by previous attacks of the *same* eruption which have appeared from time to time for perhaps many years. Some of the pustular syphilides may resemble acne, more particularly the affection of the sebaceous glands that often follows the excessive use of bromide of potassium, the so-called "bromic acne." Ulcerative lesions about the face are sometimes difficult to distinguish from lupus. In these cases a careful study of the patient's history, and the appearances of former scars, if any such exist, are often of more value in a diagnostic point of view than the aspect of the lesion itself. Further, the syphilitic ulceration has probably lasted but a few months, while the lupous disease may have been present for years.

Syphilitic bone pains and nodes present little difficulty in diagnosis, but the affections of the viscera and of the nervous system will

frequently baffle the most careful and expert diagnosticians. In fact a correct diagnosis in many cases can only be determined by carefully watching the effects of treatment.

Prognosis.— The general prognosis in syphilis is good, both as regards the removal of existing lesions, and the ultimate comfort of the patient, in cases that are seen early in the course of the disease, and are subjected to judicious treatment. On the other hand, cases that have been neglected or badly treated in the beginning are more difficult to manage, and more apt to present frequent relapses. Besides these, there are a number of other circumstances that modify the course, and consequently the prognosis. Among them may be mentioned the general health of the patient, his habits as regards temperance in eating and drinking, and his ability to procure proper and sufficient nourishment, medical attendance, etc. His occupation, if one necessitating much exposure, may likewise influence the result. In addition it must be remembered that some cases are naturally light, and that others, on the contrary, are particularly severe. These various elements therefore must be borne in mind whenever we consider the prognosis of

syphilis, either with respect to a particular case, or as regards the disease in general. The various lesions, too, have each their separate and individual prognosis. The chancre is rarely more than a temporary inconvenience. Occasionally, however, it becomes complicated with phagedenic action; and more or less sloughing may seriously impair the beauty and symmetry of the affected organs. Ulceration about the soft and hard palates may permanently impair the voice, and be accompanied with even more serious inconvenience. Necrosis of the bones may confine the patient to bed, and interfere for a greater or less time with his usual occupations. Affections of the eye if not promptly treated may seriously impair vision, and disease of the nervous centers may produce permanent disability or speedy death.

CHAPTER XII.

TREATMENT OF SYPHILIS.

THE treatment of syphilis must be considered under three heads: First the hygienic, second the specific, and third the local.

Hygienic treatment.—The very first points to which the physician should devote his consideration are the condition of the patient's general health, his habits, and his surroundings. If his health is good, his habits correct, and his circumstances comfortable, it is only necessary that these conditions be preserved.

If, however, he is suffering from some previous disease, this should be relieved, or its effects obviated if possible. If he is intemperate, reformation is a *sine qua non* of successful treatment. Good health, good food, good air, suitable clothing, freedom from undue exposure to the elements, regular exercise, and methodical habits constitute more than half of the treatment, and combined with proper specific medication rob the disease of most of its terrors. *Per contra*, the absence of these essential elements will greatly impair the effects of otherwise judicious treatment, and not unfrequently lead to relapses annoying alike to the physician and the patient.

Specific treatment.—This embraces the use of mercury, the only known specific and directly curative agent yet discovered, and of the iodides of potassium and sodium, and

the chlorides of gold and platinum, for the relief of certain symptoms pertaining to the later periods of the disease.

The basis of anti-syphilitic treatment may be expressed by a single word, and that word is MERCURY. That mercury when properly administered cures syphilis is beyond a question ; that it is the best known remedy for this purpose we firmly believe. The question, however, is frequently raised as to whether mercury, although curing the syphilis, may not produce effects nearly if not quite as bad as the original disease. This will depend entirely upon the manner in which it is administered. Abundant experience has shown that if properly given it may be continued almost indefinitely, with the result of curing the disease, and without in any way injuring the health or constitution of the patient. On the other hand it may be given in such a way as to produce the most disastrous consequences. Mercury, then, is to enter into the treatment. By many it is given sparingly and with hesitation, and is soon abandoned for the iodide of potassium. The majority of practitioners, however, rely pretty fully upon mercury in the early secondary stage, combine

it with the iodide of potassium under the name of "mixed treatment" in the intermediate period, and trust to the iodide alone in the management of tertiary lesions. Personally we use mereury in all stages, never employing the iodide if it can be avoided.

An interesting and at the same time important question arises at this point: How does mereury cure syphilis? Is it by some alteration of the constitution of the blood, and the eonsequent induetion of nutritional changes, or is it by direet loeal aetion of the drug upon the lesion itself? The former is the more prevalent belief, but the latter, we think, is nearer the truth. Mereury cures the lesions by its partieles being brought direetly in eontaet with them, and *cæteris paribus*, the larger the quantity of mercury that can be made thus to act, the sooner the eure, *provided* the remedy be used in sueh a way as not to exhibit its own peeuliar poisonous effects. Mereury, like every other specifie remedy, as soon as it poisons, ceases to cure, and becomes in addition a very ready and potent agent of misehief. By these two principles the treatment is to be guided.

If the lesion under notice be a chancre (not a chancroid) it does not require cauterization, but instead a local mercurial application, and for this purpose we know of nothing better than the ammonio-nitrate of mercury. This is a black powder, and should be freely dusted upon the sore, and renewed as often as may be necessary. If this salt cannot be readily obtained, the following lotions will answer almost as well:

"*Lotio nigra.*"

℞. Hydrarg. chlor. mite.. gr. xxx
Liq. calcis..... f ʒ ij
M.

"*Lotio flava* 'seu' *aqua phagedenica.*"

℞. Hydrarg. chlor. corros.... gr. xv
Liq. calcis..... f ʒ x
M.

The bottles should be shaken, and the mixture applied several times a day.

If, in addition to the chancre, there is induration of the inguinal and post-cervical glands and the diagnosis is absolute, give mercury internally. For this purpose we prefer the protoiodide given in pill or in trituration. One grain given in divided doses may be considered the average maximum

daily allowance. The following formulæ will be found convenient:

℞. Hydrarg. protoiod.... gr. xv
Make ninety pills. Dose six pills or less per diem.

℞. Hydrarg, protoiod..... gr. xv
Sacch. lactis..... gr cxl
M.
Divide into ninety powders. Dose six powders or less per diem.

In some cases it will be found that the protoiodide given as above will produce symptoms of gastro-intestinal irritation. Under these circumstances the dose must be diminished, or the drug combined with a sedative as follows:

℞. Hydrarg. protoiod.... gr. xv
Ext. lactucarii..... ʒ j
M.
Make ninety pills.

Or,

℞. Hydrarg. protoiod,
Pulv. opii.....āā gr. xv
Sacch. lactis..... ʒ ij
Mix thoroughly, and divide into ninety powders.

Or,

℞, Hydrarg. protoiod.... gr. xv
Pulv. ipecac. co..... gr. cxl
M.
Make ninety powders.

Of these pills or powders two may be taken after each meal until there is evidence of mercurial action upon the gums. At the very first suspicion of salivation, however, the quantity must be diminished to four, three, or even two pills or powders per diem. The degree of tolerance of mercury varies with different patients, and it is frequently necessary to skirmish for a few weeks, increasing or diminishing the quantity until the appropriate dose is ascertained. When this is determined it should be continued without interruption, if possible, for at least eighteen months. That this is frequently possible, we know by experience ; that it is desirable we are fully convinced. At the end of this time if the patient has had no syphilitic symptoms other than those for which he first came under treatment, or if he has been for a considerable time without specific manifestations, all medication may be abandoned, in the hope that the disease has been completely eradicated. In a considerable proportion of cases this hope is not an unreasonable one. This prolonged mercurial treatment is of course not to be thought of unless the diagnosis of syphilitic chancre is absolute. In cases of doubt as to

the nature of the sore, it is better to wait for the development of secondary symptoms. When these appear the course just mentioned should be at once adopted and faithfully followed up for the period mentioned with as few interruptions as possible. If there be mucous patches or other lesions about the mouth, the trituration is to be preferred to the pill, insomuch as the finely-divided drug is thus brought into immediate contact with the lesions themselves, and by its local action hastens their removal. The continued use of mercury as here recommended is possible and practicable in a certain number of cases. In others, however, it cannot be strictly carried out. The causes of failure are usually due either to negligence on the part of the patient, or to too large doses of the drug in the beginning. A great many patients, especially those of the lower classes, abandon all treatment as soon as the manifestations for which they sought relief have disappeared. The almost inevitable result is, sooner or later, a relapse. This is again relieved by temporary treatment followed by another relapse, until actual symptoms of the tertiary period appear in such a form as to demand the use of iodide of potas-

sium or other agents for their relief. On the other hand, if mercury is pushed too freely at the start mercurial symptoms about the mouth and even decided salivation may suddenly develop. This state of affairs is to be greatly deprecated, because in the first place it necessitates interruption of the treatment, and in the second place salivation is a positive evil, besides being a source of great annoyance to the patient. If salivation should occur, the mercury must be absolutely withdrawn, and sulphur in small doses frequently repeated is to be substituted. In addition the mouth should be frequently washed with tepid water to which a little chlorate of potash and tincture of myrrh have been added. Belladonna and its alkaloid are also of service. Under the use of these means the salivation will usually cease in a few days and buccal irritation gradually subside. The mercury should not, however, be immediately resumed. It is better to give some form of iron for a short time; *Ferrum redactum* or some of the protosalts are to be preferred to other preparations of this metal. When the general condition has been restored by the tonic properties of the iron,

the mercury is to be cautiously resumed, and continued in such a way as not to bring about a repetition of the former trouble. The regulation of the dose of mercury appropriate to each particular case cannot receive too much attention at the hands of the physician. The effort should be to give the largest amount that can be borne without the production of gastric, buccal or other irritation; in other words, to overwhelm the disease without detriment to the general condition of the patient. Besides the grosser signs of excess just mentioned, the patient's spirits, strength, and weight will form useful data for the estimation of the proper amount to be given. If, under a mercurial course, mental depression and debility, which are frequent accompaniments of syphilis, are diminished or relieved, the drug is doing good. On the other hand, if they are increased, something is wrong, and the probability is that the dose is too large. In cases of doubt it is safer to err on the side of small doses than risk the larger. In the former case, recovery may be a little retarded, but no positive injury inflicted; in the latter, recovery will be equally retarded with positive injury in addition. As the

same dose is not suitable in all cases, and as there are no positive data by which it can be determined in advance, its proper adjustment necessitates close observation, experience, and judgment.

It will be noticed that thus far there has been no employment of the iodide of potassium.

During the past ten or twelve years we have followed substantially the treatment above described in all cases that have come to us early in the disease, and in but few instances (except in those in which the iodide had been previously given) have we found it necessary to employ it. In general after the disappearance of the lesions for which the patient has come under treatment, subsequent developments have been trifling and unimportant, such as a few scattered papules upon the body or scalp, and milk-spots and superficial erosions about the mouth. In no case, so far as our notes and recollections serve, have iritis, pustular or ulcerative lesions occurred.

Although the protoiodide is the only preparation of mercury of which we have yet spoken, it must not be supposed that it is the only one that is of service in early syph-

ilis ; on the contrary, it may be replaced, and frequently to advantage, by calomel, or protoxide of mercury, or by the metal itself in a state of minute subdivision, as found in blue pill, and in triturations with chalk or milk sugar.

The foregoing applies simply to cases of syphilis that come under treatment in its early stages. In many instances, however, we will be consulted at a later period, and for lesions of a more serious character. This will often compel us to modify the treatment, and to introduce an additional therapeutical agent, namely, the iodide of potassium. This drug is extensively employed in syphilis, more frequently, we think, than it should be. Its popularity is due principally to the fact that it exerts a very prompt control over certain manifestations of the disease, and to the idea possessed by many that its effects upon the system are less injurious than those of mercury. This opinion we cannot altogether share. The iodide, however, has its special functions to perform, and under certain circumstances is indispensable; but before employing it we must understand exactly what it is capable of effecting. Mercury

cures the disease, and by so doing removes the cause that produces the various symptoms; the iodide, on the other hand, relieves certain symptoms with wonderful rapidity, but does not eradicate their cause. In other words relapses are far more frequent after its use than after the judicious employment of mercury. The conditions to which it is appropriate are affections of the periosteum and bones, extensive ulcerations, gummata, and affections of the nervous system. In cases accompanied with severe periosteal pains, the aid of the iodide may be invoked for the relief of this symptom, a relief which if given in sufficient doses it usually affords. In cases of extensive ulceration, or other processes involving the integrity of important organs and where there is not time to wait for the more tardy action of mercury or when this latter is contra-indicated by the patient's general physical condition, the iodide should be used promptly and freely. The cutaneous erruptions and ulcerations pertaining to the tertiary period disappear more rapidly under the use of the iodide singly, or combined with the mercury than under the use of mercury alone. The size of the dose will depend some-

what upon the patient's previous familiarity with the drug. The less he has taken on former occasions the less he will probably need, and *vice versâ*. In the former case, a dose of five to ten grains three times a day will usually be sufficient. It should be given in an abundant menstruum, either water or some simple syrup agreeably flavored, or with the compound syrup of sarsaparilla, or with the compound tincture of cinchona, if a tonic is needed. It is generally advisable to give mercury in addition. This may be ordered separately, or in combination with iodide. In the latter case the vehicle or menstruum should not contain an alkaloid, as the probable result would be the precipitation of an iodo-hydrargyrate of the alkaloid. In this case, unless the mixture is well shaken, the patient will get little or no mercury in the earlier doses; but as he reaches the bottom of the bottle will get more mercury than he bargained for. This accident we have several times known to occur. In early syphilis the protosalts of mercury are usually preferred; but in late disease, especially when used with the iodide, it is the almost universal custom to employ the persalts, the bichloride

and biniodide being the favorites. These may be given ordinarily in doses of gr. $\frac{1}{3}\frac{1}{3}$—$\frac{1}{1}\frac{1}{2}$ three times a day. Under this treatment the lesions under consideration will usually improve in a satisfactory manner. As soon as they have disappeared, the iodide should be discontinued, and a persalt of mercury be given in small doses for a considerable period. If the patient is already habituated to the use of the iodide before coming under treatment, somewhat larger doses than those mentioned may be required.

In cases of extensive or advancing ulceration about the tongue, soft palate or fauces the iodide is required, and in considerable doses. No definite dose can be named. The drug must be pushed until it checks the progress of the lesion, which it will usually do if enough of it is given. As soon, however, as the trouble is checked and fully under control, a persalt of mercury should be prescribed, and the iodide gradually diminished and finally abandoned, the mercury being continued for a few months longer.

In lesions of the nervous system also, our chief dependence is upon the iodide. If the symptoms are not urgent the drug may be given in moderate doses of about 15 grs.

three times a day. If the trouble, however, is grave, the dose must be rapidly increased. When the symptoms are finally mastered, the iodide is gradually diminished and supplemented by mercury.

From the above it will be seen that mercury and iodide of potassium both have important rôles to fill in the management of syphilis. Their properties and powers, however, are not identical, as many seem to think, and consequently they are not interchangeable. They cannot be given one for the other, in the hope of attaining the same end; but each must be used accordingly to the special indications of the case, the iodide to relieve symptoms and lesions in the later periods of the disease; mercury to cure the disease itself in all its stages. The foregoing are the principal agents to be employed in the specific treatment of syphilis, but a few words are necessary in regard to their administration. As a rule, mercury is given by the mouth; when, however, the stomach or bowels are particularly irritable, the drug may be used hypodermically, or by fumigation. In the former case, the bichloride or bicyanide may be employed; in the latter, calomel.

Local treatment.—If the views previously expressed (p. 87), to the effect that mercury cures syphilis in consequence of the particles being brought into direct contact with the lesion, are true, it is to be expected that local treatment, when practicable, will be exceedingly useful, and play an important part in the management of the disease. These expectations are fully verified by clinical experience.

The local treatment of the chancre has already been considered. The mucous patch, whether of the genitals or of the mouth, requires local applications. The most efficient agent for this purpose is the acid nitrate of mercury. One or two applications are usually sufficient to dissipate patches of ordinary size. If this is not available, the bichloride of mercury may be employed in a plain one per cent solution, or dissolved in collodion. Milder preparations, *e.g.*, calomel, black-wash, etc., are less painful and less efficient. Nitrate of zinc in stick form, though not acting in a specific manner, will cause rapid disappearance of the lesion. Papular and tubercular lesions, especially about the face and other exposed parts, demand speedy removal. This may be best

effected by daily friction with *ungt. hydrarg*, *ungt. hydrarg ammon.*, or *hydrarg. oleat.* five per cent. In *ulcerative* lesions, the crusts should be removed, the ulcers well cleansed, and gently touched with *liq. hydrarg. nitrat.*, and afterward dressed daily with the protoiodide in ointment as follows:

℞. Hydrarg. protoiodidi 1. (gr.xv)
Cerati..... 30. (℥j)
M.

In many cases of extensive ulceration, or of inveterate disease, the most prompt results are frequently obtained by means of mercurial fumigation, by inunction with mercurial ointment, or by hypodermic injection. One or the other of these methods is of course imperatively demanded when the administration of mercury by the mouth produces irritation of the gastro-intestinal tract.

CHAPTER XIII.

THE SCROFULIDES.

UNDER this designation we shall describe certain affections that appear to depend in

great measure, if not wholly, on the scrofulous diathesis. They include the different varieties of lupus and also the affection known as phlegmonous scrofulide or scrofuloderma, phlegmonusum, together with the affection described by Hebra under the name of Lichen scrofulosorum.

General Characters of the Scrofulides.—These affections present a number of general characters which separate them as a class from other cutaneous affections, and which, if properly appreciated, will enable us in most instances to recognize them without difficulty. While some varieties are more superficial than others, they all attack the true skin beneath the epidermis, and may even penetrate to a considerable depth below it. Their color is usually a reddish violet; less brown than eruptions of syphilis, and not as red as that of an acute dermic inflammation. Their course is exceedingly chronic, and usually painless. They sometimes ulcerate, but not always. In either case, however, they leave indelible scars. The ulcers if present do not display the round clean-cut appearance of syphilitic ulcers, but are more irregular in outline, and with uneven borders. The bottom of

the ulcer may be fungous and bloody, or with pale, unhealthy, and sometimes exuberant granulations. The crusts which cover the ulcers are thick, but not very hard, and of a greenish-black color. Crusts in some cases form even in the absence of ulceration. In others, instead of crusts, there are fine adherent scales.

The progress of the scrofulides is slow; uncured cases of twenty or more years' duration are not infrequently seen. Occasionally they recover spontaneously, but their usual course is to spread for an indefinite period unless arrested by proper treatment. The superficial varieties cause deformity from the cicatrices which follow them. The deeper varieties may terminate fatally.

LUPUS.

Definition and description.—Lupus is a chronic, non-contagious, destructive disease of the skin, characterized by extreme obstinacy and liability to relapse. Of this disease there are three principal forms, differing from each other in certain particulars, but yet presenting several important features in common. These are color, configuration, location, course, absence of pain

and pruritus, difficulty of cure, and termination.

The prevailing *color* of lupous lesions is not the frank red of an acute congestion or inflammation nor the coppery red of syphilis, but rather a violaceous red, with a shade of copper. It disappears under the finger, revealing, the instant the finger is removed, a somewhat yellowish hue, to be replaced a moment later by the color that was present before pressure was applied. The color is that which we would expect in a part containing more than the normal quantity of blood, but in which the circulation was sluggish, without, however, absolute stasis. Sometimes the lesions present a somewhat translucent appearance, like that which characterizes gelatinous bodies.

In *configuration*, lupous lesions usually exhibit a circular form, extending centrifugally, not with the absolute circularity of trichophytosis, but showing a strong tendency to it whenever the anatomical form of the parts on which the lesion is located will permit. Irregularity of configuration, dependent on location, is sometimes markedly shown in connection with some forms of lupus of the nose, in which the entire

lesion may assume the appearance of a butterfly with extended wings. On the upper eyelid the lesion takes a linear or oval form, the long diameter corresponding with furrows of the lid. On the ear the patch is very irregular in outline.

The favorite *location* of lupus is the face. The nose, cheeks, the neighborhood of the eyes, temples, forehead and ears, may be primarily affected or become the seats of later lesions. I have also met with it on the scalp and on the penis. It may also appear on various parts of the general surface, usually, however, in connection with, or subsequent to the development of the disease on the face.

With a rare exception to be mentioned later, the *course* of the disease is essentially chronic, and cases will be met with in which it has continued for five, ten, twenty, and even a greater number of years.

As a rule, there is neither *pain* nor *pruritus*. Sometimes the patient, on being asked, will state that there is slight itching, but I have never seen scratch-marks or other evidence of severe pruritus. If the lesion be extensive, a sensation of local heat is sometimes complained of.

The *difficulty of cure* is proverbial, and has been recognized from the earliest times. There is no known internal remedy that can be depended on to stop the progress of the affection in its various forms. Cures by internal medication have been reported, but the failures have far outnumbered them. External treatment is more promising, and of late years has been brought to a degree of perfection that enables the surgeon to state that the great majority of cases seen within a reasonable period after their commencement are permanently curable ; except those in which the underlying diathesis is so pronounced that fresh outbreaks on parts other than those first affected, continually occur, to the great annoyance of the surgeon and the discouragement of the patient.

Except when the affection terminates in death, there is always a scar left to indicate the site of the previous lesion. This is true both of ulcerative and non-ulcerative forms.

The three principal forms of lupus are *Lupus erythematosus, L. vulgaris* and *L. exedens*, the first two of which present certain sub-varieties.

Lupus Erythematosus. — Erythematous Lupus first appears as a small, reddish macule, in its earliest beginning presenting no features that are sufficiently characteristic to enable its true nature to be distinguished. It slowly increases, and when it attains a diameter of a quarter of an inch or so, it can be readily made out as a very slightly elevated patch of peculiar color, dry, and sometimes a little scaly. The fine scales are not imbricated like those of psoriasis, nor loosely attached like those of pityriasis. On the contrary, a small speck of the stratum corneum partly loosens, presenting a free and unattached edge; but if traction be made, it will be found that the remainder of the scale is quite adherent. These partly detached scales may be found all over the patch, in some cases more freely developed than in others, but never heaped up in strata, as in psoriasis. The patch continues to extend, and in four or five years, sometimes sooner, may reach an inch in diameter. As a rule, before it quite reaches this size, a change commences in the centre; the color become less marked; the elevation subsides, and the skin looks thinner even than normal. In other words,

atrophic changes in the skin are going on, and the ultimate result is the replacement of what was once normal skin by a white, depressed cicatrix. As these alterations proceed, the lesion still extends at its periphery, and we have presented an annular infiltration slightly raised above the normal skin outside it, and above the cicatrizing skin within. These processes may go on from year to year until the patch has involved a large extent of surface, half the face for instance, and during the entire period there may be no ulceration. Meantime, other patches may form and increase in size for an indefinite period. Sometimes the extension of the patch ceases spontaneously, and, after undergoing the atrophic changes mentioned, its seat is occupied by a blanched, depressed scar. This cessation of morbid action is rare, and can never be predicted beforehand. The principal diagnostic points on which to rely are the color, the slight scaliness, the chronic course, and the tendency to scarring. The only affections liable to be mistaken for it are chronic erythema, scaly eczema, and syphilis. The absence of infiltration in the first of these should be

sufficient to distinguish it from lupus. In eczema the history of the eruption and its special features, together with the total absence of all tendency to the formation of cicatricial tissue, should make the diagnosis clear. A papulo-squamous syphilide might somewhat resemble an erythematous lupus, but the lesions in the former disease would be far more numerous, they would not have lasted any great length of time, and the history of the case and concomitant symptoms would probably be sufficiently distinct to clear up any doubts.

Prognosis.—The prognosis of erythematous lupus is good so far as any given lesion is concerned, provided it is not already too extensive, as in the majority of cases it can be controlled. A much more difficult undertaking, however, is to prevent the appearance of fresh lesions at other points.

Lupus Vulgaris.—The typical lesion of Lupus vulgaris in its early stage is a soft, indolent, elastic tubercle of a yellowish or brownish violet color, and with a somewhat translucent aspect. The tubercle may exist alone, or may form one of a group of eight or ten. A single group may be present, or several others may be present on different

parts. The lesion is exceedingly chronic, but gradually enlarges, and after attaining

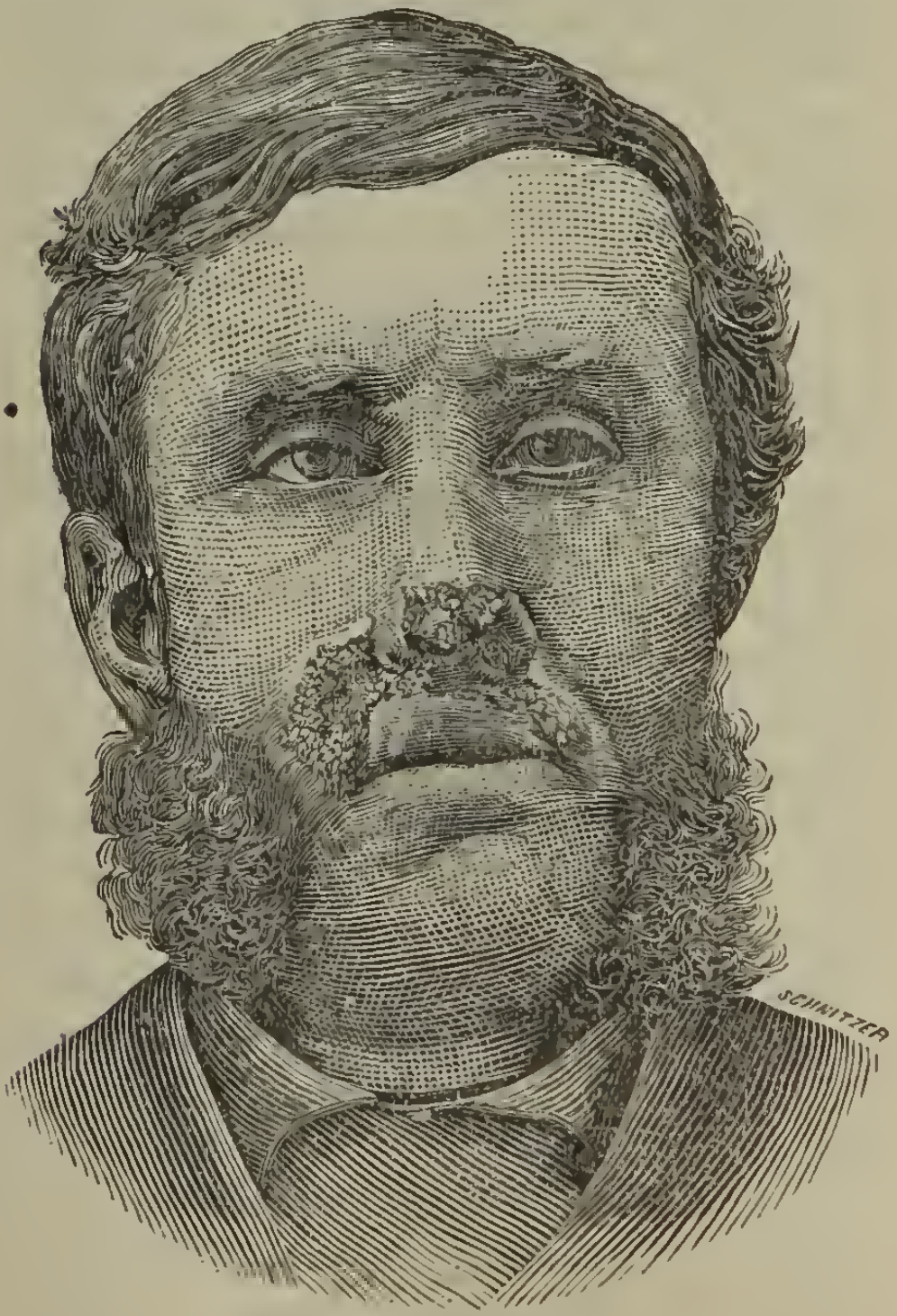


FIG. 6.—LUPUS VULGARIS.

a certain size may persist indefinitely in

that condition, and finally undergo resolution and disappear, leaving after it a depressed cicatrix. More commonly, however, superficial ulceration occurs, and the lesion becomes covered with a darkish adherent crust or scab. When this is removed the ulceration is revealed. In a short time it is covered with a fresh crust, and each time that this is removed—and some patients have a habit of frequently picking them off—the ulceration is found to be more extensive than before. The ulceration extends superficially, involving, perhaps, the entire thickness of the skin, but, in this form of lupus, not going beneath it. Occasionally a good deal of infiltration occurs beneath the group of tubercles, and newly formed connective tissue makes its appearance, the whole giving rise to an elevated or protuberant mass, to which the name of *hypertrophic* lupus has been applied. Sometimes, on the other hand, well-defined tubercles do not appear to have time to form, but degenerative action commences early, and we have a group of pustules soon crusting over and covering an ulceration of considerable extent. This process goes on more rapidly in this than in

the other form, and the floor of the ulcers is sometimes covered with irregular granulations simulating a warty or papillomatous

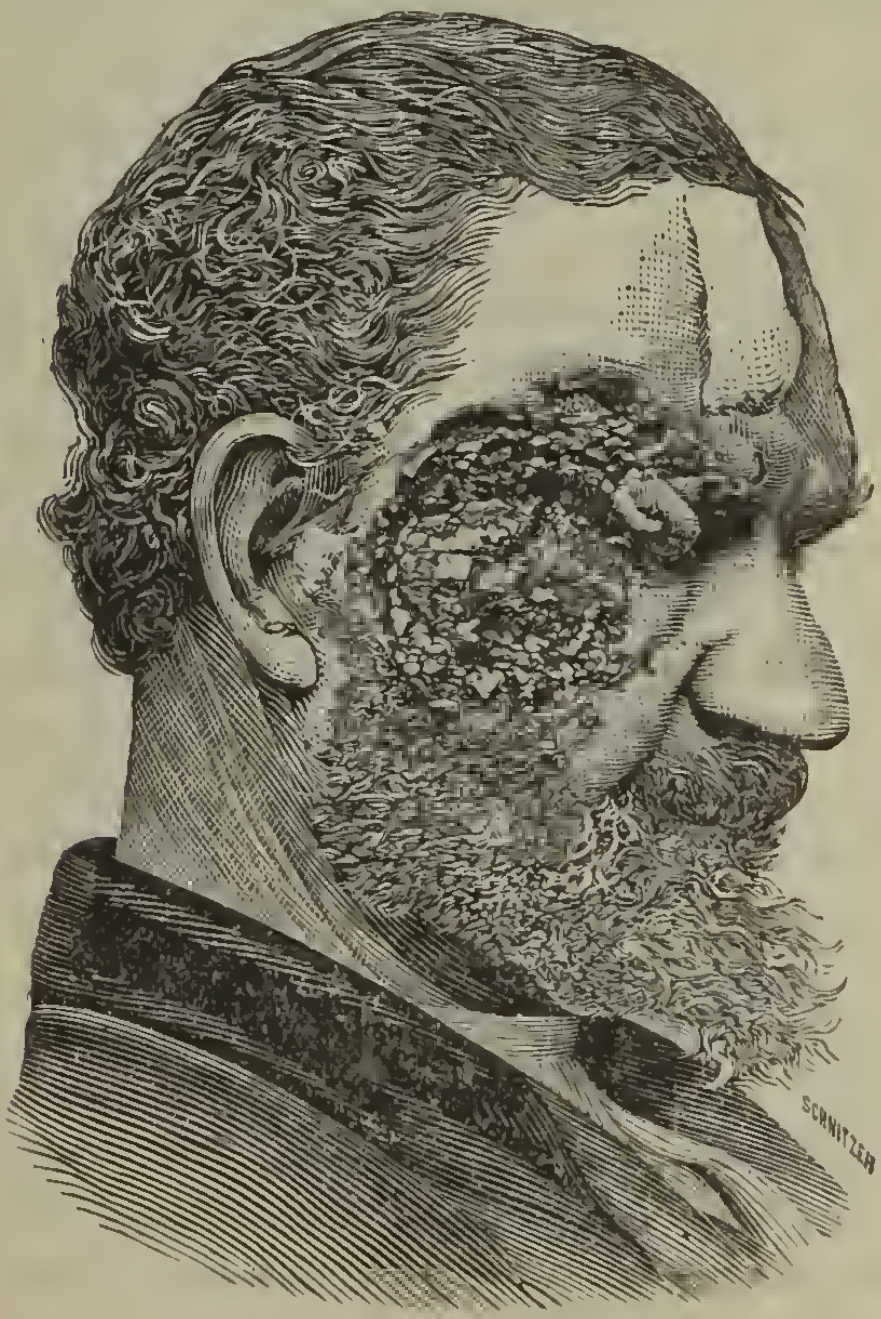


FIG. 7.—LUPUS AND EPITHELIOMA.

growth. To this condition the name *Verrucous* lupus is sometimes given.

Diagnosis.—The only disease with which Lupus vulgaris is liable to be confounded is syphilis. In the latter disease the lesions are more apt to be generalized, and their progress is much more rapid. In a few weeks syphilis might entail a loss of tissue that would require months or years of lupus ulceration to effect. The ulcers of syphilis have much more sharply cut margins than those of lupus, and the amount of discharge is usually greater, and it possesses a peculiar disagreeable odor not met with in the latter disease.

Prognosis.—The prognosis is much the same as that of the erythematous. If taken in hand early, it may be eradicated without very much difficulty. The tendency to relapse, either at the site of the original lesion, or at other points, is not so great, I think, as in the other form. On the other hand epithelioma sometimes develops on the site of a long-standing lupous ulceration. In the transition period it is not always easy to determine the actual presence of epithelioma. When, however, this disease is frankly developed, its characters are too distinct to be mistaken.

Lupus Exedens.—This disease commences

by the appearance of a soft tubercle, which slowly but gradually increases in size until it has attained the volume of a pea or small hazel-nut. By this time a crust will have appeared on its summit. On its removal an ulcer will be exposed. This gradually increases both as to area and depth, and after a time, five or ten years perhaps, the tubercle will have disappeared, and in its place we find a more or less extensive ulceration, characterized by irregular, overhanging margins of nearly normal or even less than normal consistence, with perhaps a softish tubercular development similar in character and appearance to the original tubercle. As the ulceration advances not only the skin but also the tissues beneath it are destroyed, leading to great disfigurement of the affected parts. During the progress of the affection additional and, not rarely, symmetrically developed tubercles may appear and slowly degenerate into ulcers. Before, however, these secondary developments have attained any great size the patient will probably have succumbed. In my own experience, phthisis pulmonalis has been the usual termination. After a time, in some cases, the morbid action appears to change, and an epithelio-

matous condition supervenes, evidenced by everted and hardened margins, and more or less pain. As a rule, Lupus exedens, pure and simple, is not specially painful. A portion only of the ulcer may become epitheliomatous, the remainder preserving its primitive lupoid features.

There are but three of the commoner affections with which Lupus exedens could, by any chance, be confounded. These are, Syphilis, Lupus vulgaris, and Epithelioma. In the first instance the duration of the lesion is sufficiently characteristic. In an early stage of Lupus exedens I must confess I do not know of any pathognomonic sign by which it may be distinguished from an early condition of Lupus vulgaris. In a late stage the depth of the ulceration is sufficient. From epithelioma it is to be distinguished by the character of the primitive nodule, of the margin, the course and the frequently multiple lesion, the pain, finally by the microscopical appearances. In lupus the nodule is softer than the surrounding normal tissue, in epithelioma it is harder; in lupus the margin is irregular and often undermined and not hardened; in epithelioma it is thickened, looking as if everted and hard.

In lupus the progress is very slow, in epithelioma more rapid; in lupus there may be several lesions in different stages of development, in epithelioma there is rarely more than a single lesion; lupus is comparatively painless, epithelioma is frequently painful.

TREATMENT OF LUPUS.

The extreme difficulty of successfully combating many, if not most, cases of Lupus, necessitates a very thorough consideration of every point bearing on the subject. In this, as in all chronic affections, the hygienic surroundings of the patient should first be inquired into. Is he living under the best conditions possible? If not, is it practicable to improve them? These points being satisfactorily settled, we come to what may be termed the *etiological treatment*, that is to say, the management of the underlying scrofulous diathesis. In many instances this diathesis does not present very pronounced features, and less attention may be paid to it, and the ultimate prognosis may be regarded more favorably. On the other hand, the most obstinate and continually relapsing cases are those in which we find the most marked evidences of constitutional impair-

ment. The drugs that are supposed to be most useful in this connection are cod-liver oil and preparations of iodine and iron.

Besides what may be termed the etiological treatment, additional internal medication will often be advisable, and energetic local treatment will, in most, if not in all cases, be requisite. The importance of local treatment will be appreciated when we consider the fact that we are dealing with lesions which tend to gradual extension and involvement of new regions by an apparently infective process similar to, but less in degree than that manifested by cancer. This infective quality is evidenced by the fact that, if a patch of lupus be incompletely destroyed, the disease will most certainly return. The plain indication, then, is to remove the lupous infiltration as soon and as thoroughly as possible. From these general considerations we pass to treatment of the different forms of the disease.

Treatment of Lupus Erythematosus.—Internal treatment first requires notice. So far as I am aware, we possess no medicinal agents capable of exerting a specific or elective influence over the lupous process. It does not follow, however, that benefit will

not ensue from the judicious use not only of the drugs already mentioned, but also of some others. Phosphorus is certainly capable of influencing the disease, but it is a two-edged sword that must be handled with great circumspection. It is not wise, however, to rely on internal treatment alone, but in conjunction with it suitable local measures should be employed. The methods of local treatment at present in vogue endeavor to accomplish one of three objects —either to produce absorption of the lupous cells, to destroy them *in situ*, or to remove them mechanically.



FIG. 8.—VIDAL'S LUPUS SCARIFIER.

The most reliable modes of treating the disease are the scarification plan of Vidal, and the scraping and cauterizing treatment of the author. M. Vidal's method is a small scarifier of the shape and size shown in the cut (Fig. 8).

With this instrument the diseased skin is cut in parallel lines of about $\frac{1}{16}''$ apart. At the end of a week the cuts are renewed, but at an angle with those previously made.

This is continued week by week, until the infiltration is destroyed and ceases to be reproduced.

The method devised and advised by the author consists in the use of the dermal curette (Fig. 9), followed by the actual, or a powerful potential cautery. With the curette the diseased surface is thoroughly scraped. The infiltration will break down like old cheese, while the normal integument will resist the action of the scraper. When as much of the infiltration as possible has been thus removed, and the surface of the traumatic ulcer thoroughly cleaned and dried, a potential caustic, or the actual cautery, should be applied. This is necessary, as it is impossible to remove, by scraping alone, all of the lupous cells ; some of them at the margins of the infiltration extending into the apparently healthy adjacent skin. Of the potential caustics, the chloride of zinc, alone, or mixed with an equal quantity of the solution of the



FIG. 9.—DERMAL CURETTE.

chloride of chromium, is, on the whole, so far as my experience goes, the most satisfactory. The caustic being applied, a little absorbent cotton (as much as will stick to the part) is pressed on, and the wound left to take care of itself. In from two to three weeks, sometimes longer, the crust will become detached, and the whole or greater part of the lesion will be found healed, or in a healing condition. The caustic is somewhat painful, and the swelling and reaction greater with the mixed chlorides than with the zinc alone. The mixture, however, appears to me to be more effective than either of the chlorides used by itself. The actual cautery (Paquelin's), however, is for several reasons better than the potential. First, the pain, except at the moment of application, is much less; second, the slough separates more quickly; third, the part heals sooner; fourth, there is less local reaction; and fifth, a better scar results. The lesion having been properly scraped and dried, the Paquelin is brought to as near a white heat as possible, and slowly moved over the surface, being kept in contact with the tissue long enough to produce an eschar about $\frac{1}{25}''$ or a little more in thickness. A bit of absorbent

cotton is then applied, and without further dressing the wound is left to take care of itself, which it will usually do in the most satisfactory manner.

Treatment of Lupus Vulgaris.—This variety demands much the same treatment as the one previously described.

Treatment of Lupus Exedens.—The treatment of this form of lupus is to be conducted on the same principles as hold in the other varieties. When the lesion is of comparatively small size, as in the first years of its existence, it should be extirpated, if possible, with the knife. If, for any reason, this is impracticable, scraping, followed by the actual or potential cautery, will give the best temporary result, and also the best guarantee for the future.

When, however, the lesion has already attained a large size, as two inches or more in diameter, and extends deeply beneath the corium, the condition may almost, though not absolutely, be regarded as hopeless. The question of the amount of scar or deformity to be left after surgical interference, no longer enters as an element to be considered in deciding the character of the operation, which should be thorough and radical

in the extreme. Both the curette and the knife must be brought into play, and every ramification and trace of the disease be removed, so far as it can be mechanically. After the bleeding has ceased, and the wound cleansed, the parts should be thoroughly cauterized, preferably, I think, with the pure chloride of zinc, and the cavity packed with absorbent cotton.

In two or three weeks the slough will have separated, and if the patient be possessed of sufficient vitality—and he should not be operated on unless he does—a healthy ulcer, with tendency to heal, will present itself. In a few weeks more, however, there may be at one or more points indications of relapse. These must be immediately attacked, and, by carefully watching for and destroying these fresh outcroppings, the surgeon will be able, in a certain number of cases, to control the disease. In this, as in all the varieties of lupus, one general statement may be made, and this is that half-way measures do more harm than good. Attack the lesion in the most vigorous manner, or leave it entirely alone.

SCROFULODERMA PHLEGMONOSUM.

This affection occurs almost always on the

face. I do not recollect having seen it elsewhere. It commences with a little tumor taking its rise in the corium. The tumor usually has an oval form, and gradually increases in size, reaching at length that of an almond, or a little larger. The skin covering the tumor presents a violet, reddish, or livid hue. Little by little the tumor softens, and the skin becomes thinner and thinner, until at last it breaks, giving exit to an ill-conditioned scrofulous pus. A crust forms over the opening, damming up the fluid, which, after a time, breaks out anew at the same or at some other point. This process continues until several openings are made, which uniting, form an ulceration of greater or less extent, and possessing the usual scrofulous characters. These abscesses may be single or multiple, and their number is variable. This condition of affairs may progress for months or years before final cicatrization occurs. The scar, at first violaceous, ultimately becomes white, irregular, and reticulate. In some cases the abscess does not open, but the pus is absorbed without the occurrence of ulceration; but even in these a violet spot remains for a long time, to be ultimately followed by a de-

pressed and puckered scar. Successive crops may prolong the affection for years.

This form of disease possesses such well-marked characteristics, that it ought never to be mistaken for abscesses occurring in the subcutaneous connective tissue or in the glands. As a rule, other plain indications of the scrofulous diathesis are manifest.

The prognosis will depend on the promptness with which judicious treatment is undertaken. If left entirely alone the ulcerations will ultimately heal, but not until after the lapse of many months, and considerable scarring is the inevitable result. If, however, the lesion be treated promptly and properly, a much better result may be obtained.

Local treatment, however, is not to be neglected. If the nodules have not yet softened, they may sometimes be made to disappear by the use of *Ungt. Iodinii*, or *Ungt. Potassii Iodidi.* If they have already softened, and contain pus, remove this by aspiration with a hypodermic syringe; inject a few drops of tincture of iodine, and apply pressure. If this fails, lay open the abscess freely, scrape its cheesy walls with the dermal curette, and apply tincture of Iodine, Carbolic acid, *Liq. Hydrarg. Nitratis*, or

Ungt. Hydrarg. Biniod. An application of one of these may be sufficient to induce the formation of laudable pus, after which simple applications should be employed so long as matters proceed favorably. If stimulation is again needed it should be employed. Instead of the drugs mentioned, the actual cautery, after scraping, may be employed. This has, on the whole, given me the best results. The affection requires energetic local treatment, and the sooner it is undertaken the less will be the amount of subsequent scarring.

LICHEN SCROFULOSORUM.

This affection, first clearly described by Hebra, consists in an eruption of miliary papules of a pale yellow or reddish-brown color, though sometimes the normal hue is preserved. The papules are disposed in groups, sometimes forming circles or segments of circles, beyond which pigmentary macules, marking the site of earlier papules, may occasionally be seen. The little elevations are always covered with fine scales. Pruritus is insignificant. The papules promptly attain their maximum development, but then persist unaltered for a long

time. At last they gradually undergo resolution after having existed for months or even years. Sometimes tubercles, resembling those of acne, and which may go on to suppuration, develop in the neighborhood of the papules. The horny layer of the epidermis between the groups of papules exfoliates in fine scales. Each papule is situated at the orifice of a hair-follicle and forms an elevation consisting of a mass of horny cells. These cells contain a larger amount of entangled fatty matters than usual. After removal of the semi-globular epidermic mass, which constitutes the papule, the open mouth of the piliferous follicle may be perceived with the naked eye. The eruption may occur upon any part of the body, and be more or less generalized. In about ninety per cent. of the cases met with by Hebra, other scrofulous lesions, as enlarged lymphatic glands, periostites, caries, etc., were encountered.

This disease is exceedingly rare in this country, as I have met with but three well-marked cases. In these, however, the affection was readily diagnosticated in consequence of the typical character of the lesions, recalling, in the most exact manner,

the description given above. I know of no other affections with which it might be confounded.

The prognosis is good. All of the cases treated by Hebra recovered, as did the ones under my own observation.

Treatment.—Hebra recommends the use of cod-liver oil, both internally and externally. He commences with an ounce, morning and night, on an empty stomach. Locally, he applies the oil with a liberal hand, so as to keep the affected parts constantly saturated with it. At the commencement of treatment four frictions a day should be employed, and the parts covered with flannel; later, two in the twenty-four hours will be sufficient. He found warm baths and vapor baths prejudicial. The diet should be nutritious and highly nitrogenous, and proper hygienic conditions should be enforced. I have nothing to add to this except the addition of other antistrumics, as iodide of iron, etc.

EPITHELIOMA.

As cancer is considered by many to be a constitutional disease, and as the epithe-

lial form in many respects resembles lupus, we shall consider the affection in this place.

Epithelioma of the skin is a tumor originating in the stratum Malpighii, and characterized by a tendency to increase in size, to invade adjacent tissues, both superficially and deeply, and to destroy them, and ultimately to destroy the life of the individual that bears them. The growth commences, generally speaking, as a proliferation downward of the cells of the interpapillary portions of the stratum Malpighii. These downward roots or shoots assume various forms. After a time the rapid increase in the number of new cells and the circumferential pressure of the surrounding connective tissue compels them to occupy the least possible amount of space. This they seek to accomplish by arranging themselves in concentric and stratified layers, constituting the stratified cell-nests, or "epidermic globes" of histological writers. Thus firmly compressed they form little microscopic masses, which, when a number of them are aggregated, give rise to a tubercle or nodule, the peculiar characteristic of which is hardness. After a time, probably as the result of pressure and deprivation of nutrient

material, these nodules "break down," that is, undergo a necrobiotic process, which leads to ulceration. This process continues, and the amount of tissue-destruction is limited only by the degree of vital endurance possessed by the patient.

Epitheliomata, however, are not all alike, either in their behavior or mode of origin. Sometimes they appear to arise spontaneously and without apparent cause; sometimes, on the other hand, they are secondary developments arising as sequels to chronic and long-continued local irritation. Some epitheliomata invade the tissues deeply and infect the neighboring lymphatic glands, others confine their ravages to the cutaneous tissues proper. Some run a rapid course, others exist for years before acquiring a very large size. They vary also as regards the grade of malignity exhibited in different cases, slowly corroding superficial one spossessing this feature to a much slighter degree than the others.

Treatment.—Extirpation is the first thing to be thought of, provided the case is not so far advanced that ultimate recovery is hopeless, or even temporary alleviation improbable. If an operation is admissible it should

be performed as early and as thoroughly as possible. When the lesion is conveniently situated and fairly circumscribed, excision, including a broad margin of surrounding tissue, appears to me to be the most judicious procedure. When more diffuse or irregular, caustics may be employed, or excision of a part or the whole followed by the caustic application. The caustic employed may be either Vienna paste, sulphuric acid paste, one or more of the caustic chlorides, or arsenic. The former are active destroyers of tissue, but exert no poisonous influence on the system. The last is energetic to a degree, exceedingly painful, and in a number of instances its application has been followed by fatal poisoning. Of the various modes of using arsenic that of Marsden is perhaps the best. His method is as follows: "A thick paste of arsenic is made according to the following formula:

℞. Arsenious acid..... ʒ ij.
Mucilage of gum acacia.. ʒ j.

To be well mixed together, and made into a thick paste.

"The patient's health having been attended to, the whole of the cancerous surface is to be spread over with this paste,

provided it is not more than a square inch, and the paste must be sufficiently thick not to run; a piece of dry lint is then pressed on to the part, overlapping the paste half an inch all round; this must be left for a short period, say ten minutes, by which time any superabundant paste will have been taken up by the extra lint, which is then to be carefully cut away with a sharp pair of scissors; in an hour, or at most two, the lint covering the paste will have become dry and hard, and it will adhere closely and firmly to the cancer. In the course of twenty-four hours the surrounding parts will commence to swell, become red, and to a certain extent inflamed, and the patient will experience a drawing pain. In general, this is by no means severe, and does not last more than one or two days. At the expiration of from forty-eight hours to three days, according to circumstances, bread and water poultices are to be constantly applied and changed every two or three hours; the pain, redness, and swelling will by this time have subsided, and a distinct line of demarcation be seen extending entirely around the cancerous mass; the skin ulcerates, and a fissure is formed, separating the slough from

the healthy tissues; the fissure continues to deepen, until the entire cancer comes away, leaving a healthy cup-like depression varying in size and depth according to the mass removed. Healthy granulations will now commence, and it will be well to continue the poultices for some time; indeed it often happens that no other application need be used."

As regards the use of internal remedies little can be said. Besides tonics and roborants to improve the general condition, arsenic, as a specific remedy, is almost the only one that need be considered. This drug certainly appears to have been useful, and in fact curative in a few cases of presumably malignant disease, but whether these cases were genuine epitheliomata cannot be determined.

CHAPTER XIV.

LEPROSY.

Leprosy, though a rare disease in the United States, is occasionally met with and therefore merits notice. By English writers it is usually called *Elephantiasis Græcorum*, and by continental authors, *Lepra*.

The disease presents three principal varieties, namely, the Tubercular, Macular, and Anæsthetic. The symptoms of these varieties usually commingle in varying proportions in different cases. Before the symptoms of leprosy become sufficiently distinct and characteristic to be recognized as such, we commonly find a prodromal stage of greater or less, often of years' duration. In this stage there is nothing to particularly attract attention to leprosy, and the only evidence of ill-health may be a feeling of languor or loss of force, with sometimes mental depression. Occasionally a brownish discoloration (*macule*), or an isolated bulla, may appear from time to time, the first one usually healing before the second makes its appearance. Later the macules become more abundant and larger, from the size of a coin to that of a hand; but it is difficult to appreciate with the fingers any thickening or infiltration. The patches at first are of a reddish-brown, and as they increase peripherally their advancing border retains this color, while the centre and other portions gradually lose it and fade into a dirty gray, and sometimes to dead white.

Sometimes these spots may disappear entirely without leaving any mark. When the spots first appear they are commonly *hyperæsthetic*, but as the disease progresses this condition gradually disappears, and ultimately the white patch becomes completely *anæsthetic*. This is readily explained by the early congestion and subsequent destruction of the finer nerves. In company with the macules, or without them, tubercles may arise. These are thickened elevations of the skin, sometimes quite circumscribed, at other times more diffuse, but commonly without much discoloration. At first they may be hyperæsthetic, subsequently becoming anæsthetic. They appear, upon any part of the body, but very frequently make the face their favorite seat, showing themselves above the eyebrows, about the lips, and upon the ears. When they are developed to any great extent, they render the features repulsive and disgusting to the last degree. The tubercles frequently persist throughout the whole course of the disease, but sometimes undergo ulceration, or disappear by interstitial atrophy and absorption. Accompanying the tubercles there may be patches of skin which are anæsthetic, but

which exhibit no other change. This anæsthesia may be temporary or permanent.

The *anæsthetic* form of leprosy may arise as a late stage in the course of a case which at the beginning had exhibited tubercular features mainly, or it may occur without such previous tubercular development. The principal cutaneous lesions met with at the commencement of this form are *bullæ*. These vary in size, and persist for a short time only. Commonly they rupture, dry up, and leave a stain which after a time becomes anæsthetic. Hyperæsthetic patches of varying extent may appear from time to time, and persist for months or longer, and be ultimately succeeded by anæsthesia. The anæsthetic portions of skin may also undergo a certain degree of atrophy, which process may involve the subcutaneous tissues, and result in ulceration, and, if situated upon hands or feet, to caries of the bones.

Treatment.—We are hardly justified in calling leprosy incurable, in view of the fact that in some cases the progress of the disease has undoubtedly been stayed. In the majority of cases temporary alleviation and retardation of its progress is quite possible. The drugs which appear to have the great-

est influence in this direction are *Oleum Gynocardii* and *Nux Vomica*. The former is used internally in doses of ten to thirty drops, and externally in the form of an ointment. The nux vomica is given internally in full doses. The treatment must be maintained for many months. The drugs above mentioned may be used in alternation, giving each for a month at a time, and then replacing it by the other.

CHAPTER XV.

ICHTHYOSIS.

This is one of the rarer affections of the skin, and of much less importance than the disease last described. To the naked eye its prominent characteristic appears to be an excessive development of epidermis; and in the anatomical classifications it is placed by the side of psoriasis and pityriasis in the class of squamous diseases. As a rule, ichthyosis is developed in early life, even a few months after birth, though exceptionally it may appear for the first time after adolescence. Once fairly established, it is rarely

cured, but persists indefinitely, and usually during the whole life of the patient. It is markedly hereditary, and frequently affects several members of a family.

Ichthyosis manifests itself in the beginning by great dryness of the skin, with excessive production of horny cells; but, as a rule, there is at first little change in the color of the skin; that is to say, the skin is not reddened. The natural lines of the skin are deepened and become more manifest, mapping out the surface into little areas, plainly visible to the naked eye, which, under ordinary circumstances, could only be perceived with the aid of a lens. The dry and scaly condition of the skin would at first suggest the idea of pityriasis; but a more careful examination shows that the constant fine, bran-like desquamation, so prominent a feature in pityriasis, is absent in ichthyosis.

Later, as ichthyosis advances, the masses of epidermis become much thicker, and separated into little hillocks, as it were, by numerous lines and fissures. The fissures extend through the epithelial accumulation, but do not generally invade the rete or the derma, and hence are not accompanied with

the oozing found in some other affections. The color of the surface changes also, becoming tawny, dark, and at last almost black. This is due not so much to pigmentary discoloration of the skin proper, as to accumulation of dust and dirt among the epidermic scales. Finally, in a fully-developed case, we have a more or less generalized epidermic hypertrophy of dark aspect, and everywhere seamed by cracks and fissures, interfering sorely with the comfort of the patient. A remarkable peculiarity of this disease is the diminution or absence of perspiration. In many cases this function is merely diminished, in others it appears to be totally absent. This is undoubtedly due either to congenital absence or defective formation of the sudoriparous glands, or to their early atrophy.

Prognosis.—As a rule, the local difficulty is never wholly remedied. A cure may generally be considered out of the question, and the affection expected to annoy the patient to a greater or less degree during his entire life. A certain amount of relief, however, may be afforded by treatment.

Treatment.—The first therapeutical indication is to remove the scales. This may

be done by daily, or twice daily frictions with green soap, aided by alkaline, hot air, or vapor baths. After the frictions with soap and the baths, the skin should be thoroughly rubbed with some emollient. A very excellent formula for this purpose may be prepared as follows:

℞ Potassii iodidi..... ℥ j.
Ol. pedis bubuli,
Adipis.....āā ℥ ijss.
Glycerini..... f ʒ j.
M.

Instead of this we may use cod-liver oil, egg oil, or sperm oil. After we have succeeded in removing the scales and getting the skin in a tolerably fair condition, if we stop treatment, the morbid condition will soon return as bad as ever. It will therefore be necessary to continue treatment indefinitely, by the more or less frequent use of alkaline and Turkish baths with daily inunctions. Jaborandi, by stimulating the sudatory function, produces decided amelioration. By these means, and by these alone, the condition of the patient may be rendered quite comfortable, so long as they are persisted in.

NON-DIATHETIC AFFECTIONS.

CHAPTER XVI.

ERYSIPELAS.

Definition and Description.—Erysipelas is an inflammatory affection of the skin, more frequent on the face than elsewhere, characterized by heat, intense redness and swelling, and a tendency to the formation of vesicles and bullæ, and usually accompanied with more or less febrile disturbance. The affection having once appeared, spreads rapidly and may involve a large extent of surface, the entire face for instance, in two or three days. It usually reaches its height in about a week, after which, if everything goes favorably, it begins to decline, and by the end of the second week or sooner, the swelling and redness will have disappeared, and the horny layer of the epidermis be in a desquamating condition. The disease almost invariably runs an acute course, and terminates in, at the most, three weeks.

Diagnosis.—The features presented by erysipelas are so characteristic that there is little difficulty in diagnosticating the affection.

Prognosis.—The disease, in the great majority of cases, terminates favorably, in a few cases fatally.

Etiology.—Although erysipelas is a very common disease, its etiology is by no means clear. In the majority of cases careful observation has shown that it follows some lesion of continuity, and it is supposed by many that this is always the case. In some instances, however, this previous lesion cannot be demonstrated.

The treatment that we have found most useful embraces the use of three important remedies. These are aconite, belladonna, and quinine. The first of these is given internally at the outset of the disease, while the fever is high or increasing. It should be given in rather full doses, and continued until defervescence commences. At the same time belladonna should be used externally, the affected parts being thoroughly anointed once or twice daily with a mixture of equal parts of belladonna ointment and lard. The belladonna may be pushed until

its specific effects on the throat are apparent. It should then be diminished. After defervescence commences quinine in moderate tonic doses is of great service in promoting a prompt convalescence.

REFLEX AFFECTIONS.

CHAPTER XVII.

ACNE.

Acne is an inflammatory disease of the sebaceous glands, affecting by preference, if not exclusively, those which are connected with rudimentary hairs, and is usually located on the face, neck, chest, or back, or on two or more of these localities at the same time. It is characterized by papules, pustules, tubercles, and indurated nodules, which, on disappearing, may leave cicatrices. It affects both sexes, and is most common between the fifteenth and forty-fifth years, corresponding to the period of most active sexual life. Its course is usually chronic, and when untreated may persist for years. The principal varieties are *Acne Vulgaris* and *Acne Indurata*. The former of these is most frequently met with in early life, and may be said to consist in an eruption of small or medium-sized discrete pap-

ules or pustules, not surrounded by much infiltration, but frequently accompanied with comedones. This affection may pass, by insensible gradations, into *Acne Indurata*, which consists of larger papules, tubercles, and pustules, with reddened, infiltrated, and hardened bases, and more or less surrounding congestion and infiltration.

The diagnosis is usually easy, the only affections with which it is liable to be confounded being a papulo-pustular or tubercular syphilide, a papular eczema, rosacea, lupus, and certain medicinal rashes.

From syphilis it can be distinguished by the previous history, duration, and in early syphilis the more or less general diffusion of the lesions over the whole body. In late syphilis the lesions most nearly resembling an indurated acne usually exhibit an ulcerative tendency. A papular eczema of the face may sometimes closely simulate a mild Acne vulgaris. In the former affection the papules do not necessarily correspond to the sebaceous follicles, and, besides, if the eczema has lasted for any length of time, there is usually more interpapular infiltration, and a disposition to the formation of scales. Advanced rosacea is frequently com-

plicated by acne, but when existing alone and in an early stage is characterized by localized congestions, not specially involving the sebaceous glands. In some cases of superficial lupus a plentiful development of papules might suggest an acne, but in acne the individual lesions usually run their course in from one to three or four weeks, while in lupus they persist for months.

We have placed acne in the group of reflex affections, in consequence of a firm belief that in the great majority of instances it is not a primary condition, but one dependent on irritation, derangement, or disease of other organs reflected on the skin. The organs specially involved are those connected with the sexual and digestive systems. Acne vulgaris is pre-eminently a disease of youth, frequently first showing itself at the inception of puberty, or shortly after, and lasting, with varying severity, for several years. In young adolescents there is little doubt that it is often connected with too frequent sexual excitement, more especially of an unnatural kind. In young women menstrual irregularities play a not unimportant rôle. In one case it may be a scanty or deferred menstruation ; in another,

a too frequent or profuse one, and in still another more or less dysmenorrhœa. In other cases again these functions may be performed in a comparatively normal manner, but constipation or dyspepsia is present, and seems to constitute the principal etiological factor.

Acne Indurata is more common in older persons. In women it is most frequently due to menstrual or gastric trouble, while in men its origin must be sought in gastro-enteric or hepatic derangement, the latter not rarely due to excessive use of spirituous beverages.

Treatment of Acne Vulgaris.—The first point to be considered is the probable cause of the eruption, and the means best adapted to its removal. A detailed consideration of these will take us too much out of our way. The next point to be looked into is the general hygienic condition of the patient. If there is room for improvement in this respect it should certainly not be neglected. Fresh air, exercise, diet, etc., should be duly regulated, and any habits that are prejudicial to health should be corrected. Attention to the foregoing may involve the employment of tonics, neurotics, emmena-

gogues, etc. Among the first, cinchona and its derivatives are, I believe, rarely indicated, except when the condition calling for the tonic treatment is the result of excessive menstrual or seminal losses, or is dependent on malarial poisoning. Iron, if prescribed, should be given sparingly and for short periods only, for if given in excess and for too long a time it is capable of producing anæmia, and is even credited with the power of exciting an acneform eruption. Nux vomica and strychnia are tonics, peptics, and neurotics, and may often be usefully employed ; so also the bromide of potassium may prove useful as an anaphrodisiac and sexual sedative, but its special influence on the sebaceous glands should not be overlooked, and care should be taken that it does not do more harm than good. If menstruation be deficient, any of the well-known emmenagogues may be employed, the blue cohosh (*Caulophyllum thalictroides*) having given me great satisfaction in this connection. Functional dysmenorrhæa is sometimes promptly relieved by pulsatilla or viburnum opulus, and menorrhagia by ergot. The regulation of the bowels by laxatives, etc., when necessary,

should be borne in mind. All this should be regarded as preliminary, and brings us to the direct treatment of the eruption, which treatment will be either internal or external —or, better, a combination of both.

The remedies specially interesting in connection with the direct internal treatment of Acne vulgaris are arsenious acid, bromide of arsenic, sulphide of calcium, and sulphur. The action of these drugs is by no means the same, and the indications for their employment are far from being identical. While making this statement, it must be understood that the writer is not prepared to present their several indications with the precision that might be desired. Literature is almost silent on the subject, and personal experience (too often deceptive) is the writer's main guide to the differential selection of the drugs mentioned. Arsenious acid has appeared best adapted to those cases in which the papular element was the most prominent, the papules being indolent, not very painful, and slowly pursuing their course to resolution without changing to pustules. Sulphide of calcium, on the other hand, is best adapted to cases characterized by a plentiful development of sensitive and

painful papules, rapidly becoming pustules, which pursue a somewhat acute course. The greater the tendency to pustulation, the more strongly the sulphide is indicated. The bromide of arsenic occupies a middle ground between arsenious acid and sulphide of calcium, and is probably adapted to a greater number of cases than the drugs just mentioned. Sulphur has always enjoyed a certain measure of repute in the treatment of acne, but I have rarely found it of service except in a few extremely indolent cases, in which doses of from five to fifteen grains, alone, or mixed with bitartrate of potassium, have appeared to excite a beneficial influence. Ergot in doses of 20 minims of the fluid extract, continued for several weeks, is sometimes extremely useful. The external treatment of Acne vulgaris should go hand in hand with the internal. Recollecting that the lesion of acne runs a definite course, the progress of lesion should be hastened as much as possible. An inflamed papule having appeared, it, on the one hand, remains a papule for a week or two, and then gradually undergoes resolution without suppuration, and gradually disappears—or it may change into a pus-

tule, the pus appearing at its summit—sometimes more deeply. After the pus is discharged, the lesion gradually disappears, leaving a slight macule, which in turn fades away. In either case the duration of the lesion may be materially shortened. This may be accomplished by freely incising, or rather puncturing, each advancing lesion with a lancet point. The slight bleeding that follows should be encouraged by fomentations of *warm* water. This to be followed by applications of water as hot as it can be borne, and which should be repeated two or three times a day, each application lasting five or ten minutes. The patient is then directed to procure a proper lancet, one with a guarded point is preferable (Fig. 10), and to puncture every new lesion as it appears. As comedones frequently co-exist with Acne vulgaris, they should be next disposed of. This accomplished, various ointments and lotions are of service, the most useful of which, in my experience, are *Ungt. Hydrarg. Ammon.*,



FIG. 10.—ACNE LANCE.

Ungt. Sulphuris, Ungt. Sulphuris Iodidi diluted, and lotions containsng a little *Hydrarg. Chlor. Corros.* (gr. j.—ij. to the ounce), or sulphur. An admirable application is precipitated sulphur, intimately mixed with three or four times its weight of any simple toilet powder. All that is really needed is a mildly stimulating application, and one not strong enough to produce much irritation.

Treatment of Acne Indurata.—The preliminary treatment will be the same as in the other form. That is to say, the causes of the affection must be inquired into as minutely as possible. Hygiene and the general health of the patient should receive careful consideration, and all obstacles to a cure should be removed so far as practicable. The direct internal treatment is in the main the same as in the preceding variety. Arsenic and sulphide of calcium are to be used on the same indications as already laid down, but in addition valuable service is sometimes rendered by mercury, phosphorus, and the iodides of potassium and sulphur. This is especially the case when the eruption is subacute with large tubercles and much surrounding infiltration. The ex-

ternal treatment involves the employment of scarification and hot water, if the lesions exhibit an acute character. If subacute, actively irritant applications are more useful. Of these the *Sapo Viridis* is one of the most important. This should be applied every night to the affected parts until a considerable degree of irritation is produced—as much, in fact, as the patient can conveniently bear without too much suffering. When this limit is reached, the applications of the soap are discontinued, and emollients used until the artificial inflammation shall have subsided. When this has taken place it will be generally found that the original infiltration and induration are lessened. Another series of green-soap applications are then to be made in the same manner, and after subsidence of the irritation to be followed by another course, if necessary. When the whole or greater part of the infiltration disappears and the tubercles levelled down, as it were, lotions of sulphur, etc., will prove serviceable in combating the remaining hyperæmia. Instead of *Sapo Viridis*, ointments containing *Hydrarg. Bichlor.*, *Hydrarg. Biniod.*, *Potassii Iodid.*, *Sulphuris Iodid.*, etc., may be em-

ployed. The object sought in these applications is the substitution of an artificial inflammation which tends to a spontaneous subsidence, and usually results in a beneficial modification of the pre-existing lesions.

COMEDO.

SYN.: Acne punctata.

Definition and Description.—The term Comedo is applied to a condition in which the skin, especially of the face, is studded with little black points looking like grains of gunpowder. These points indicate the opening of the sebaceous follicles, and the black speck itself is caused by the dirt which has been entangled in the external extremity of the plug of sebum which fills the follicle. If the skin in the neighborhood of these points be firmly compressed, the sebum will be forced out of the follicle in the form of a little worm-like body. Comedo, then, is simply a condition in which the sebum is retained in the follicle for an unusual length of time. This distends the follicle, and the longer the retention is maintained the larger the follicle becomes. The process, as a rule, goes on without giving rise to any special local irritation, and nothing marks

the progress of the affection other than an increase in the size and number of the affected glands. Occasionally inflammation ensues, and a papule, or, perhaps, a pustule forms, giving rise to a common form of simple acne. Comedo occurs most frequently in young persons, of both sexes, from the age of puberty to the twenty-fifth or thirtieth year. It is rarely seen in those more advanced in life.

Course.—The progress of the affection is slow and indolent, and if uninterrupted by treatment is frequently prolonged for years, gradually becoming less evident, and finally disappearing entirely.

Diagnosis and Prognosis.—As Comedo is totally unlike any other affection of the skin, its diagnosis offers no difficulties. The prognosis, however, is not so easily decided.

While in some cases proper treatment will produce prompt amelioration and total disappearance of the eruption, in others the most careful and persistent efforts are followed by continual and annoying relapses.

Etiology.—The affection consists, as above stated, in retention of the sebum with enlargement of the sebaceous follicles, and depends, we believe, in the majority of cases,

on gastro-intestinal or genital irritation; in fact, on the same causes as acne simplex, which has already been considered. Masturbation, in particular, we are satisfied, has much to do with the continuance and aggravation, if not the origin of the affection.

Treatment.—Attention should be given to the general health if this seems to be in any way disordered. Dyspeptic conditions, anæmia, and constipation, are sometimes present, and both the general condition and the local difficulty sometimes improve rapidly under the use of small doses of iron, nux vomica, and sulphur, continued for two or three weeks or longer. If masturbation be a complicating feature, the habit must, of course, be abandoned. It is not, however, an easy matter to determine whether this practice is indulged in or not, as direct inquiries on the subject are usually fruitless. If the question, however, can be positively determined, phosphoric acid and ergot are likely to prove of service. The principal indications for *local* treatment are to remove the sebaceous plugs and to stimulate, if possible, the functions of the skin. The impacted sebum may be removed by squeezing the skin around the follicle between the

nails, or more readily with the aid of a watch-key. This very common device is objectionable, as the sharp corners of the watch-key tube may cut into the skin, and incite inflammation, leading to the formation of an acne papule. A much better way is to use a little instrument that I have devised for the purpose, and which is here shown (Fig. 11).



FIG. 11.—COMEDONE EXTRACTOR.

The little circular ring at the end of the instrument is placed over the comedo and gentle pressure is made. This will generally cause the plug to emerge from the follicle. Sometimes, however, it requires considerable pressure to effect this; more, in fact, than it is prudent to exert or the patient cares to endure. This difficulty can be remedied by first distending the mouth of the follicle with the point of a needle, and afterward applying the instrument.

If the affection be at all extensive and the comedones numerous, the physician can teach the patient how to use the instrument, and then abandon this part of the

treatment to the latter's own care. The patient, with the aid of a looking-glass, can thus, in a few *séances*, free himself, at least temporarily, of the greater part of his trouble; and by resorting to the operation, from time to time, when necessary, keep his face in a very presentable condition, until the tendency to the return of the affection is broken up, or of its own accord deserts him, which it will usually do in four or five years from its first appearance.

ROSACEA.

Definition and Description.—Rosacea, at its commencement, is characterized by the appearance of small reddened macules, or a diffused, reddened patch on the nose or cheeks, or both. The redness gradually extends until after some months, or perhaps years, a considerable part of the face may be involved. The principal characteristic at this stage is a diffused superficial redness, without much, if any, infiltration. In this condition the affection may persist indefinitely, and perhaps never go beyond it. More frequently, however, it passes on to the second stage, characterized by the appearance of minute blood-vessels. As the disease

progresses, these vessels increase in size, both as to length and breadth, and frequently become tortuous and varicose. At the same time the integument itself thickens, and occasional pustules arise. These are generally seated in the sebaceous glands, and are in reality an acne secondary to the rosacea. They are rarely, however, a prominent feature of the affection, and should be regarded as accidental complications due to the extension of the morbid action from the surrounding tissues to the glands. This second, or varicose, stage of rosacea is like the first, of gradual development, often requiring years, but still progressing with slow but steady step. In some cases the affection halts in this stage; in others the morbid action continues, and is accompanied with infiltration of the cutaneous tissues. This may result in very great thickening of the integument, and in severe cases lead to decided hypertrophy and deformation of the nose, which is the part most liable to be the subject of this form of rosacea. This thickening and hypertrophy may be uniform, or, more frequently, somewhat irregular, budding out in different places into rounded elevations or tubercles. These are not

proper acne tubercles, but projections of the general integumentary tissues, including, of course, many sebaceous glands. The large and tortuous veins which characterized the second stage are also present in this, but the red color, so prominent in the earlier periods of the disease, in many cases disappears in great measure as the hypertrophic changes advance. Rosacea may occur at any period of adult life, but, as a rule, does not become developed to any great extent until middle age or later.

Treatment.—The first step in the management of rosacea is to ascertain the exciting cause. This done, the next is to remove it, if possible. If the patient is dyspeptic, or suffers from habitual constipation, these conditions must be relieved by measures that need not be here considered.

If the liver seems at fault, mild cholagogues, in small doses and long continued, are often of decided service. If spirituous indulgence appear to be the principal cause, it is of course necessary that this should be corrected. If uterine disorder appears to be at the root of the trouble, this sometimes requires the special arts of the gynecologist for its removal, at other times may be vastly

benefited by a little simple medication. For instance, an amenorrhœa, due to anæmia, may sometimes be removed by the judicious use of iron, sometimes by arsenic; if malarial complications are present, the same drugs, or quinine or eupatorium, may be more advisable. If neither anæmia nor malaria be present, the amenorrhœa may often be relieved by direct uterine excitants.

I may further state that I have, in a number of instances, vastly improved and sometimes cured rosacea by internal treatment alone, and without recourse to any external applications whatever. In many cases, however, this can hardly be done, or at least not so quickly as by the judicious use of topical measures in addition. The selection of these, however, will depend in great measure on the stage and condition of the eruption at the time it comes under notice. If acne be present as a complicating lesion, this should be first disposed of in the way already indicated. This accomplished, we find ourselves face to face with, in the first stage, a chronic congestion of the skin. Local depletion, by scarification, and hot fomentations are of special benefit, as also the method of Hebra, which consists in the

use of green-soap or alkaline soap-spirit, followed by lotions containing sulphur. In the second stage, the first thought should be directed to getting rid of the tortuous and varicose veins. This may be most conveniently done by using a fine-pointed galvano-cautery, the fine point of a Paquelin cautery, or an ordinary needle, heated to redness, or by electrolysis. Scarification and the soap treatment should follow.

In the third or hypertrophic stage, when the skin has acquired an enormous increase in thickness and extent, it may be reduced by excising portions of it, or by electrolysis, or by puncturing it freely with the cauterizing point of either the galvano- or Paquelin cautery. The writer has employed all of these methods, and in addition has obtained very decided shrinkage of hypertrophic noses by the use of the galvanic current.

CHAPTER XVIII.

URTICARIA.

Urticaria is an affection usually characterized by the sudden development of white

or red elevations called *wheals*, accompanied with heat and pruritus. Sometimes these symptoms precede the eruption, and the irritation to which they give rise leads to rubbing and scratching, which speedily induce the lesions mentioned. Once out they may last a few minutes only, or persist for a few hours and even for a day or two. In some cases they may appear and disappear several times in a day. The wheals may be few or numerous, and the affection may terminate after the first crop have disappeared; more frequently, however, there are renewals of eruption for a few successive days, and in some cases this may be kept up for weeks or months, constituting chronic urticaria.

The pruritus attending an outbreak of urticaria may be intense, and lead to the formation of unmistakable scratch-marks, and these indeed may be the only visible lesions at the time the patient visits the physician. In many persons suffering from urticaria, even in the absence of actual eruption, if the finger-nail or a pencil point be sharply drawn across the skin, a white line, soon becoming red and elevated, will appear. This lasts for a short time and then

disappears. Almost every portion of the surface may be the seat of wheals, though I have never seen it on the palms or soles, or upon the scalp. In some cases the appearance of the wheals is preceded by œdema, especially of the face, hands and feet. This may last a few days before giving place to the characteristic lesion. Occasionally the wheals may present a purplish appearance, due to extravasation of blood, constituting an *Urticaria hemorrhagica*. The stains last for some days after the wheals disappear. Severe urticarial attacks, and especially the œdematous form, are sometimes accompanied with febrile.

If the patient offers for inspection veritable wheals no difficulty can arise in determining the nature of the affection. If, however, the wheals are absent, and nothing but scratch-marks are present, the history of the case will give the necessary information. In the œdematous form the presence of a burning heat and pruritus will probably give a clue to what may be expected.

The eruption we are speaking of must of course not be mistaken for the somewhat similar one caused by contact with the common nettle (*Urtica dioica*, or *urens*).

The prognosis is always good, as the acute form can be brought to a speedy termination, and the chronic, as a rule, no less surely but more slowly; at least this has been my own experience of late years.

Urticaria is undoubtedly a reflex affection, and in acute cases can usually be traced to disorder of the gastro-intestinal tract from errors of diet—certain foods, as shell-fish, being especially liable in some persons to induce an attack. In chronic cases the gastro-intestinal and hepatic organs, and in woman, uterus and ovaries, are not unfrequently the starting-point of the trouble. In some instances, however, we will not be able to find sufficient evidence to convict any of the organs mentioned.

I have tried most of the methods mentioned by authors, and have settled down to the following, which rarely disappoint me: In an acute attack give ten grains of Ipecac., or its equivalent in fluid extract, every ten minutes, until free emesis is secured. As soon as the patient recovers a little from this, place him in a Turkish bath and let him remain there till free diaphoresis occurs, after which shampoo and dry him. This usually breaks up an attack. If it does

not a second application of Ipecac. and the bath will almost surely succeed. In the chronic form, careful search should be made for the exciting cause. If uterine, appropriate treatment must be adopted, together with Turkish baths. If the cause be gastro-intestinal or hepatic, a dose of calomel or blue-pill, followed by a suitable cathartic, should be first ordered. This should then be followed by small doses of almost any one of the efficient cholagogues, either alone or combined with small doses of arsenic or nux vomica. Turkish baths two or three times a week should also be taken. Outside of large cities the Turkish bath cannot be readily obtained. In default of this, free diaphoresis, by some other means, should be obtained.

ZOSTER.

Zoster is an affection characterized by the development of a cluster or clusters of moderate or large-sized vesicles on a circumscribed patch or patches of inflamed skin. When there are two or more patches, they are arranged in a line, and the line follows the course of the principal nerve-trunk supplying the part. The portions of integu-

ment most frequently affected are those which are supplied by one of the intercostal nerves. The regions supplied by the branches of the fifth pair of cranial nerves, the sciatic, the anterior crural nerve, and the nerves of the shoulder, arm, and forearm, are also not unfrequently affected. The affection sometimes commences with a sharp, neuralgic pain in one of the regions mentioned. A few days or weeks later the patient finds a little erythematous patch, which is slightly sore, the pain being usually of a burning character. A few hours or a day later another patch of the same sort is met with over the course of the affected nerve, and then others, to the number of five or six, may appear. Shortly after its appearance the first patch becomes studded with vesicles from five to twenty in number, and the other patches in turn become affected in the same manner. When the eruption is fully out, the neuralgic pain sometimes disappears. In other cases it continues, and may even become more severe. The vesicles at first contain a clear and transparent serum, which, however, may soon become opaque. If the vesicles are ruptured the corium is exposed, and the fluid, if not removed, con-

cretes into a brownish crust. If the vesicles are not ruptured they persist for a week or ten days, when their contents begin to undergo absorption, leaving an adherent scale or scab which finally drops off, leaving a reddened, and perhaps slightly depressed macule, that in time fades away. If the implication of the skin has been very superficial, no scar results. In many cases, however, the morbid action extends more deeply, and small, white, depressed scars remain to mark the site of the disease. If the neuralgia have persisted up to this time it may now cease, or, as in some cases, persist indefinitely, even for years.

If zoster attack a scrofulous subject, or one of advanced age, or in a depraved state of health from any cause, the affection may, in its local manifestations, become much more severe. The vesicles, on rupturing, may be followed by ulcers of a more persistent character. Sloughing may occur and death has sometimes resulted from the disease.

One marked peculiarity of zoster is the occurrence of the disease on one side only, the region supplied by the corresponding nerve of the other side being unaffected. Cases of

double zoster have been, though rarely, observed. Another peculiarity connected with the disease is the fact that it, like the eruptive fevers, attacks the patient but once in his life. A few cases of recurrent zoster, however, have been recorded.

The diagnosis of zoster is, as a rule, exceedingly simple. It can only be mistaken for one of the forms of herpes or hydroa. The characteristic features of zoster have just been pointed out, and the differential diagnosis between it and herpes is discussed in con ection with that disease.

The prognosis of zoster is usually good; that is, in the majority of cases the patient will entirely recover from the effects of the disease in from two to four weeks.

If the patient be in other than apparent good health, the first care should be concerning his hygienic surroundings. Good air, food, etc., should be secured if possible, and if the patient suffers sufficiently to make repose in bed a desideratum, this should be not only permitted, but encouraged. In severe cases it should be insisted on, even if the patient thinks that his business or other duties require him to be up and about. If fever be present aconite should be given.

The best local treatment with which I am acquainted is the application of fluid extract of belladonna all over the eruption. Three or four applications should be made in succession, permitting each application to dry before another is made. Over these a thick coat of collodion should be applied. Under these applications I have seen apparent abortion of the eruption.

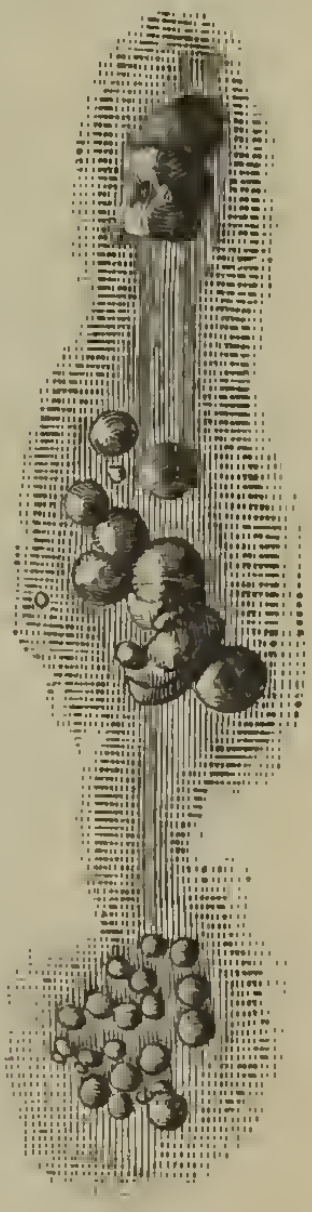


FIG. 12.—VESICLES OF ZOSTER.

HERPES.

Under the general name of Herpes may be included affections characterized by the development of a cluster of small vesicles, on a slightly, if at all, inflamed base, and usually located on, or in the neighborhood of, mucous membranes.

There are two principal varieties of herpes, which, as they differ so markedly in their nature and behavior, will be considered separately. These are *H. labialis* and *H. progenitalis.*

HERPES LABIALIS.

The vesicles of Herpes labialis are small in size, not usually exceeding one line in diameter. They are situated on a reddened and slightly inflamed base, appear upon either the upper or lower lip or upon both, or clustered about the angle of the mouth. The vesicles usually rupture on the second or third day, leaving a denuded surface. If the serum which filled them is not wiped away it dries into a thin, transparent scale or crust. This remains attached for a day or two longer and then drops off, leaving a slightly reddened mark, which gradually fades away, without leaving any trace behind. The eruption may be unilateral or bilateral, more frequently the former. The affection is rarely painful, a little heat or pruritus being usually the extreme limit of inconvenience.

The only affections with which Herpes labialis is likely to be confounded are, first, a well-defined disease known as Zoster, and, second, certain anomalous vesicular affections which are included under the provisional name of Hydroa. The differential diagnosis between Herpes labialis and zoster is best appreciated by an analytical comparison of the two :

Herpes.	*Zoster.*
Is frequently bilateral.	Is unilateral (with very rare exceptions).
May attack frequently.	Occurs but once in a patient's life (with rare exceptions).
Little pain, but slight sensation of heat or itching.	Neuralgic pain, often severe in the course of one of the nerves underlying the eruption.
Vesicles small.	Vesicles large,
Fluid usually transparent.	Fluid often opaque.
Vesicles usually rupture in a day or two.	Vesicles often persist until the fluid is absorbed.
Duration four to ten days.	Duration two to four weeks.
Lesion superficial.	Lesion deeper, often extends to the corium.
Never leaves cicatrices.	Often leaves cicatrices.

The affection is a trivial one and the prognosis is always good.

Herpes labialis often occurs at the close of

some mild febrile affection or during the course of an acute catarrhal one, and has received the common names of "fever-sore" and "cold-sore." Beyond this we know nothing as to its etiology.

Herpes labialis usually requires little, if any treatment. At most a drop or two of tincture of camphor, or a little simple dusting powder may be applied, if the surface is moist or weeping. Some persons are more subject to the affection than others, that is, they have an attack on the slightest provocation. If this tendency to frequent attacks could be controlled, it would be a great convenience to them. Unfortunately I do not know of any means of doing it.

HERPES PROGENITALIS.

Definition and Description.—This affection is characterized by the development of crops of vesicles on the genital organs. It is most frequently met with on the penis, and occurs either on the integumentary surface or on the adjoining mucous membrane.

The vesicles resemble those of Herpes labialis, and when seated upon mucous membrane rupture in a few hours, or a day perhaps, after their appearance. On rupture

they leave little excoriations or ulcers, which, if the patient's health be good, heal in a few days. In other cases the ulcerations may extend, neighboring ones unite and give rise to a condition that may readily be mistaken for venereal sores. One of the favorite tricks of charlatans is to inform the patient that they are of venereal origin, in fact, a manifestation of syphilis, and milk his pocket accordingly.

A peculiarity of Herpes progenitalis is the tendency to frequent relapses or returns of the affection. The first attack having disappeared, another may occur in six weeks, two months, or later, and this be followed by others at somewhat irregular intervals, the disease in this way continuing to annoy the patient for several years. The vesicles are not, as a rule, accompanied with much pain. Sometimes there is a little itching, and, after rupture of the vesicles, a little soreness if the organ be roughly used.

In the female the vulva may be the seat of a similar affection, usually termed *Herpes vulvaris.* It pursues the same course as in the male, and a relapsing form is sometimes met with.

Diagnosis.—The diagnosis of Herpes pro-

genitalis is not always easy. A simple, unirritated herpes should not be mistaken for anything else, as the absence of all induration is usually sufficient to exclude chancre, at least in the male. The absence of purulent secretion in like manner excludes the chancroid. Where, however, the herpes has been irritated, little ulcerations with free secretion may closely simulate chancroids, and also a form of chancre described by the French as "multiple herpetiform chancre." In these cases it may be extremely difficult to positively determine the true nature of the lesion in question, time alone declaring this with certainty.

The diagnosis between Herpes progenitalis and Zoster should not be difficult. This latter affection rarely invades the genital regions, but when it does so it possesses its ordinary characteristics, namely, clusters of vesicles on inflamed patches of integument, accompanied with neuralgic pain.

Prognosis. — The prognosis of simple Herpes preputialis or vulvaris is always good, so far as the present attack is concerned, as a week usually suffices to end the matter. The prognosis as regards relapse, however, is not so good, and cannot be de-

clared with any certainty. That is, at the first attack it will be impossible to say whether others will occur, and if they do whether the tendency to relapse will be overcome by treatment.

Etiology.—The etiology of Herpes progenitalis is obscure. It is not a febrile affection like Herpes labialis, nor is there any reason to believe that it depends on any grave nerve-lesion as in zoster. The individual attacks usually appear to be excited by peripheral irritation (phymosis sometimes) but the relapses are often unexplainable.

Treatment.—The treatment of this form of herpes involves the use of means calculated to relieve the existing eruption, and to prevent relapses. As regards the temporary treatment nothing, as a rule, is required beyond cleanliness and the application of a little simple dusting powder. If ulcerations are present, a little stimulating ointment, as one containing a small quantity of balsam of Peru, or the *Ungt. Resinæ*, may be employed.

The prevention of relapse is a much more difficult matter. The affection not unfrequently occurs in persons with a phymosis or a redundant prepuce. I have known of

two cases in which curtailment of the redundancy put a stop to the recurrence of the affection. In others the mucous membrane of the balano-preputial region is very delicate and sensitive. In these cases much benefit will accrue from a systematic application of astringents, tannin, catechu, etc., with a view to toughening the membrane. Thus far, in my own hands, internal medication has failed to prove of any certain service, except that in a few cases quinine, in full doses, has appeared to control the disposition to relapse.

CHLOASMA.

Chloasma is a designation which has been quite loosely applied, and by many writers has been made to embrace several distinct affections—to include, in fact, all brownish or yellowish brown discolorations, larger than freckles, by whatever cause produced. Some, on the other hand, confine the term to parasitic discoloration (Chromophytosis), while others, including Hebra, exclude the parasitic affection, but embrace both cases that arise from external and mechanical causes, and those that are symptomatic of certain internal conditions and diseases,

speaking of the former class of cases under the name of *Idiopathic chloasma*, and the latter as *Symptomatic chloasma*. The writer, however, prefers to restrict the name *chloasma* to certain discolorations of the skin of internal origin, and assigns the name *melasma* to cases of non-parasitic cutaneous discoloration due to external agencies.

Under these restrictions chloasma may be defined as a diffuse brownish discoloration of the skin, usually located on the forehead and cheeks.

Chloasma may arise during the period of pregnancy, and gradually increase as this condition advances. After delivery it usually diminishes and may entirely disappear, or it may remain as a marked disfigurement for a considerable period, if not for life. To this form the title *macula gravidarum* is sometimes given. Chloasma may also develop independently of pregnancy as a symptom or sign of uterine disease, and then receives the name of *chloasma uterinum*. When arising under these circumstances it is likely to be present as long as the uterine irritation remains, and sometimes persists after the exciting cause has apparently ceased to be active.

The diagnosis of chloasma presents little difficulty. The band-like discoloration on the forehead and the similar patches over the malar bones and neighboring integument are characteristic, the only other pigmentary lesion of these parts at all resembling it, being the tanning which comes from frequent exposure to the sun. We can hardly conceive that any one can mistake the latter condition for the former. Parasitic discoloration (chromophytosis) does not invade the face, though occasionally seen upon the neck.

The prognosis of chloasma is uncertain. Some cases are permanently relieved by treatment, while others relapse continually, even after the best directed efforts for their relief. The affection sometimes disappears spontaneously after the menopause.

In true chloasma of uterine origin it is probable that the seat of the discoloration is extremely superficial and located external to the cells of the stratum Malpighii. We may therefore hope, by removing the horny layer, to remove with it the abnormal pigmentary deposit, or, at least, a portion, and by the termination of pregnancy, or relief of the uterine disorder, to prevent its reformation.

Before attempting the local treatment of chloasma an effort should be made to ascertain its cause. If pregnancy be present it is hardly worth while to attempt any treatment until gestation is over. If uterine disease be the *fons et origo* of the trouble this must, of course, receive attention if any permanent benefit is hoped for. Having considered the etiological factors, the question of topical applications is then to be considered. The principal indication is to procure an exfoliation of the stratum corneum, under the expectation that the newly-formed horny layer will be free from pigmentary deposit. There are quite a number of agents capable of destroying the superficial layers of the epidermis, and causing their exfoliation, as cantharides, mustard, iodine, and corrosive sublimate, and any of them might be used for the purpose, were it not that some of them are very apt to produce a melasmic condition that may last longer and prove more disfiguring than the original affection. Mustard is especially objectionable on this account. Of the epidermicides mentioned, corrosive sublimate is to be preferred, as the least likely to produce these disagreeable sequelæ. It should be used as

a lotion of the strength of three to five grains to the ounce, applied two or three times a day until the stratum corneum loosens. This may then be rubbed off with a damp towel, and is replaced by epidermis less pigmented than before, or perhaps altogether normal. If necessary, the applications may be repeated, and the new horny layer removed by the same means. Instead of the foregoing, tincture of iodine, iodized glycerine, sulphur ointment, or sapo viridis may be employed.

LOCAL AFFECTIONS.

CHAPTER XIX.

SCABIES.

Definition and Description.—Scabies is a zoöparasitic disease, produced by the lodgment and increase of certain minute insects on and under the skin. It is usually characterized by the appearance of little transparent, isolated, non-umbilicated vesicles upon the skin, especially between the fingers and on other parts of the hands. The development of these vesicles is accompanied with itching, usually worse at night. The pruritus leads to scratching, and this scratching of the diseased parts and scratching or handling of other portions of the integument, leads to the extension of the disease to them, and we find that, as a rule, the affection next invades the penis in the male, the breasts in women, and the feet in children, from which parts it may extend to all other portions of the surface—the anterior,

however, in preference to the posterior. The head and face are rarely, if ever affected.

After a few days, in some cases, later in others, additional phenomena are presented. These, as a rule, are papular, and pustular forms of eczema, in those predisposed to this affection, together with scratch-marks and rather large, isolated, and commonly umbilicated pustules. In those possessing a decidedly pyogenic constitution, furuncles and abscesses may appear. In other words, the eruption in advanced cases is frequently polymorphous.

These are the lesions visible on a cursory examination, but none of them are absolutely diagnostic, although the vesicles first alluded to are not, so far as I am aware, met with in any other affection. There is, however, another lesion that is pathognomonic, and which, if detected, leaves no doubt as to the nature of the affection. I allude to what is called the *cuniculus*, or burrow, made by the insect that causes the disease. This lesion is a fine line, more frequently curved than straight, and of a whitish or grayish color, sometimes interrupted with black points. The line is usually from one-fourth

to one-half inch in length, and can be detected only by close inspection, but more easily with the aid of a lens. It is usually found near the vesicles, sometimes upon their surface, but occasionally is at a distance from them.

Pruritus is almost an invariable accompaniment, and may be mild, but is usually worse at night, when the patient is warm in bed.

Etiology.—Scabies is caused by the presence of an insect called the *Acarus scabiei*, or *Sarcoptis hominis.*

Prognosis.—This is always good, as the disease can be readily cured.

Treatment.—The French method of treatment is, of all that have been proposed, the most thorough and effective. It may be carried out as follows: The patient is first placed in a warm bath for half an hour, in order to thoroughly macerate and soften the epidermis. He is then vigorously rubbed with soft soap, not only on the parts that seem to be specially affected, but all over the surface, except the head. A soft scrubbing-brush adds to the efficiency of this part of the treatment, twenty minutes or a half hour being occupied in accomplishing it.

The soap having been washed off, the skin is thoroughly dried, and a sufficiency of ordinary sulphur ointment, or, better, the following—

℞. Potassii iodidi..... ʒ j.
Ungt. Sulphuris..... ℥ j.
M.



FIG. 13.—FEMALE ACARUS.

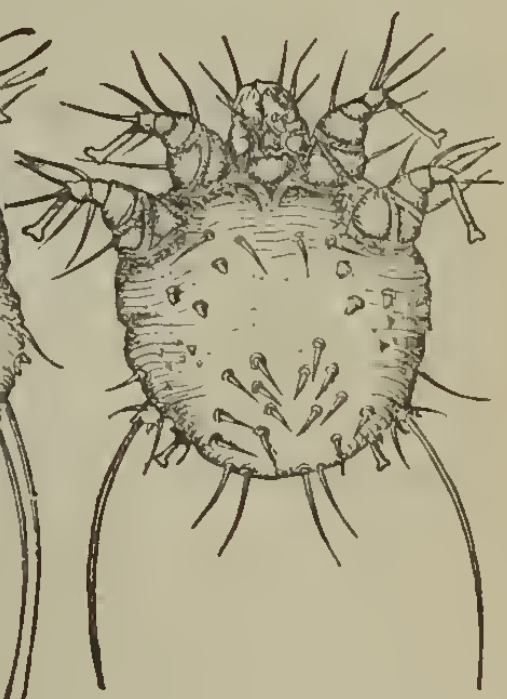


FIG. 14.—MALE ACARUS.

is rubbed all over the body in the most careful manner, special attention being devoted to the regions most affected. The patient is then put to bed, where he remains until the following morning. A warm bath, to cleanse the skin of the sulphur, completes the oper-

ation, and in ninety-nine cases out of a hundred the parasite is destroyed, the scabies is cured, and the patient has only to recover from the secondary eruptions and the effects of the somewhat severe and painful course through which he has been put. Emollient applications are now usually indicated.

If the patient resume the clothing that he wore previous to treatment, he will, in all probability, recontract the disease. It must therefore be destroyed, or thoroughly disinfected. This may be accomplished by thorough baking in an oven, or fumigation with sulphur. The bedclothes that have been in use prior to treatment should also be disinfected. There is but one objection to the treatment, and that is its severity. This, of course, may be diminished to any desired extent, but if this is done a single operation will not usually suffice to effect a cure.

PHTHIRIASIS.

Phthiriasis is the name given to a zoöparastic disease caused by an invasion of the skin by lice, of which there are three kinds: the Phthirius, or Pediculus capitis; the Phthir., or Ped. corporis; and the Phthir., or Ped. pubis. As the affections produced

by these insects differ somewhat they will be described separately.

PHTHIRIASIS CAPITIS.

This affection is due to the lodgment and increase of the Phthirius capitis or head-louse, on the scalp, which part it alone invades, the other portions of the body being exempt from its attacks. The presence of the insect gives rise to irritation and itching, and this to scratching. In some persons the insect is tolerated without much inconvenience, but in others—especially in children with an eczematous tendency—considerable reaction may result and manifest itself by vascular and pustular eruptions, accompanied with more or less exudation and the formation of crusts. In addition, glandular enlargements in the post-cervical regions, and small abscesses may appear on this region and on the scalp. The hair is frequently matted together by the exudation, and in severe cases we meet with a mass of mingled hair-crusts and lice, constituting a fetid and disgusting collection of vitalized filth.

The principal etiological factor in this disease is shown in Fig. 15.

The appearance of this insect is familiar,

I presume, to all, and need not be specially described.

A very effectual method of curing the affection is to shave off all the hair. This it is often undesirable to do. Under these circumstances an antiparasitic ointment or lotion may be employed. Mercurial or sulphur



FIG. 15.—PHTHIRIUS CAPITIS, OR HEAD-LOUSE.

ointments are effective, but perhaps the most popular application is the tincture of *Delphinium staphisagria*. Tobacco has been employed, but is dangerous. Crude petroleum, or its refined product, kerosene, is a very eligible preparation, and the one most frequently employed by the author.

It should be applied daily until the affection is at an end. Kerosene destroys the pediculus, but does not appear to retard the hatching of the ova. The young, however, are destroyed as soon as hatched, and the affection is thus, in a short time, controlled. The empty egg-shells may remain attached to the hairs for a considerable time, thus deceiving one into the belief that the parasitic affection still exists. A co-existing eczema should be treated in accordance with the principles that underlie the treatment of that disease.

PHTHIRIASIS CORPORIS.

Definition and Description.— This is a zoöparastic affection, due to the invasion of the skin by the Phthirius or Pediculus corporis. It is characterized by pruritus, which leads to scratching and the development of certain secondary lesions which may be conveniently termed scratch-marks. These, in milder cases, may consist simply of little black points, slightly, if at all, elevated above surface of the skin. They are produced by the desiccation of a small droplet of blood, resulting from the wounding of a few papillæ with the finger-nail; next we may find

red lines or streaks, surmounted with blackish-red ridges of dried blood. These minute incrustations are rarely absent, and, to a certain extent, are pathognomonic of the affection. As the insects increase in numbers, the irritation likewise increases, and the pruritus becomes intense, keeping the patient busy with his nails the greater part of the time. A superficial scratching, however, will not afford sufficient relief, and the unhappy sufferer tears the skin with his nails until he is a mass of bleeding excoriations. Under the influence of the continual irritation the skin darkens, and the body is covered with lines and blotches more or less deeply pigmented. When the disease is severe upon the lower extremities it is not unusual to find enlargement and tenderness of the inguinal glands. The affection is most frequently met with in advanced life.

The majority of cases of severe pruritus met with, at least in this city, are examples of Phthiriasis and no case of general pruritus should be passed without special examination as to its connection with vermin. The presence or absence of pediculi should be positively determined, and they usually can be without difficulty. Search for the insect

should not be made *on the skin*, as, unless very abundant, they will not be found there, but on the *undergarments*. Once found, the diagnosis is made. If after thorough and repeated examinations they are not

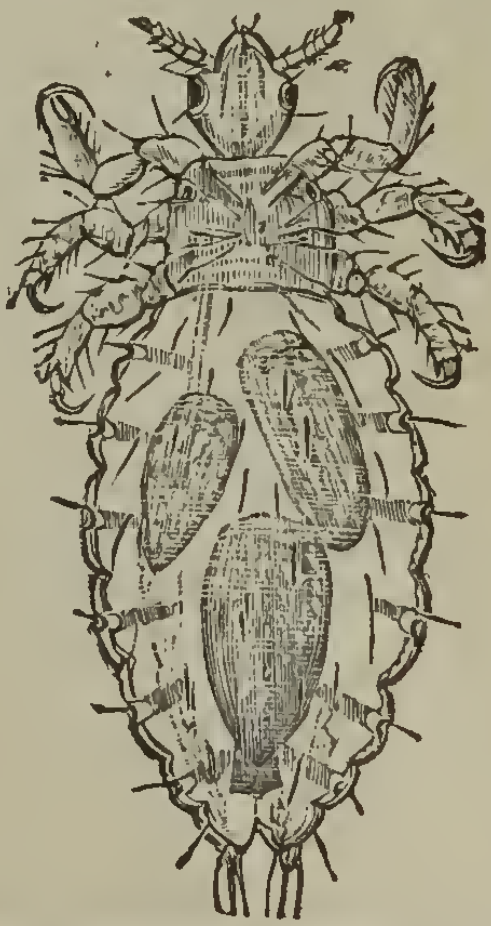


FIG. 16.—PHTHIRIUS OR PEDICULUS CORPORIS, ALSO CALLED PEDICULUS VESTIMENTORUM.

found, the pruritus must be referred to some other cause. In Phthiriasis the regions that usually exhibit the most distinct evidences of scratching are the upper part of the chest, the thighs, legs, and back; the head, belly, and genital region being compara-

tively free. In advanced cases the patient's expression, gait, and behavior are so characteristic that the experienced observer will frequently make a correct diagnosis before a single lesion is brought to his eye.

The form and appearance of the insect are shown in Fig. 16.

Treatment. — A warm bath, thorough soaping, and a good scrubbing will free the body of the patient from the parasite. The clothes and bed-clothes, however, must be disinfected by baking, prolonged boiling, or sulphur fumigation. If practicable, they had better be destroyed. A certain amount of pruritus will remain for some time after the destruction of the insect. This may be alleviated by applications of tincture of Delphinium, of Stramonium and other antipruritics.

PHTHIRIASIS PUBIS.

This affection is due to the Phthirius or Pediculus pubis, the general form and appearance of which is shown in Fig. 17.

This insect exhibits a preference for the pubic region. It is not, however, confined to this locality, as we have found it in the eyebrows, beard, and axilla, as well as the hairy parts of the chest, thighs, and legs.

It is, I believe, never met with on the scalp. The insect derives its nourishment from the skin, to which it is usually found strongly attached. It lays its eggs, however, among the hair, to which it firmly glues them.



FIG. 17.—PHTHIRIUS PUBIS, OR CRAB-LOUSE.

The affection is most frequently contracted during sexual intercourse, but sometimes by wearing infected clothing, sleeping with an infected person, or in a bed where one has slept, and probably also at the water-closet.

The presence of the insect gives rise to more or less pruritus of the affected regions,

and commonly leads to inspection of the parts and detection of the cause.

Pruritus of the hairy parts of the body, other than the scalp, should always raise suspicion as to the presence of the insect, and a careful examination will settle this question without difficulty.

Treatment.—If the eyebrows are involved, carefully pull out or snip off every hair to which the eggs of the insect are attached. Then thickly smear the part with mercurial ointment. The whiskers, beard, and moustache, if those parts are involved, may be treated in the same manner. The pubic region and other hairy parts should then be carefully examined, and the affected regions should be shaved with a razor. If a warm bath, with soap and a scrubbing-brush, be then employed, the probability is that no further treatment will be necessary. The less efficient means of cure are the employment of *Ungt. Sulphuris*, *Ungt. Hydrargyri*, etc., or lotions of bichloride, tincture of delphine, petroleum, kerosene, and the like.

CHAPTER XX.

FAVUS.

Favus is a parasitic affection of the skin, characterised by the development of pale yellowish crusts, in connection with the hairs and their follicles. It is more frequent on the scalp than elsewhere, but may be met with on any part of the body that is supplied with hair. It usually commences by the appearance of small white specks or points. These gradually increase in size, become yellow in color and umbilicated, forming small crusts, the umbilication being traversed by a hair, or if the hair be absent, will be found to correspond to the mouth of a hair-follicle. The crusts slowly augment and project somewhat above the level of the skin. If one of them be removed, it will be found to have somewhat the form of a concavo-convex lens, its upper surface having a marked depression or concavity surrounded by an elevated border. Its under surface is convex and the convexity will be found to correspond to a small depression in the skin from which it was removed. Other

crusts appear in the neighborhood or scattered over different parts of the scalp, and gradually increase in size; contiguous ones join by mutual extension, so as to form a mass of considerable proportions mottled over with little depressions perforated by hairs. As the disease further advances. portions of the crusts drop off, carrying with them some of the hairs. Ultimately the crusts disappear, leaving a surface at first somewhat reddened but afterward white, dry, atrophied and cicatricial in aspect and deprived of hair. The progress of the disease is slow, and when uninterfered with by treatment, may last for ten or twenty years before it completes its course, which it will do when it has permanently destroyed all the hairs of the affected region. Favus of the scalp attacks children by preference, being but rarely found in adults as a recent affection. It is highly contagious and may be transferred directly from one to another, or by means of caps, brushes, etc. This affection is not confined exclusively to the human race, but in some instances appears to originate in the mouse. Cats which catch mice diseased in this manner become infected from them, and children

playing with the cats contract the disease in turn from the latter.

Favus is not limited to the scalp, but may appear upon any part of the body. When it occurs upon parts furnished with but fine and rudimentary hairs, as the general surface, it commences as a small, red, very slightly raised spot. This enlarges and becomes a little scaly until it has reached a diameter from half an inch to an inch. Upon this reddened patch one or more small white points, not larger than pin-heads, appear. These increase in size and develop into the characteristic sulphur-yellow umbilicated crusts. This epidemic favus appears to attack adults as freely as children.

Favus is usually accompanied with a certain amount of pruritus, rarely severe, which leads to scratching and the mechanical transfer of the disease from one part to another.

Etiology.—Favus is caused by the lodgment and development of a minute fungus upon the surface and in the hair follicles. This fungus has received the name of *Achorion Schönleinii*, after its discoverer. It consists of round or ovoid spores, about one-three thousandth of an inch in diameter,

together with tube-like structures called mycelium, some of which are simple, others branched; some contain spores and others are empty. In addition there is a considerable amount of fine granular matter. The appearances presented under the microscope are shown in Fig. 18.



FIG. 18.—ACHORION SCHÖNLEINII.

The spores penetrate deeply into the hair-follicle, even to the bottom, where their further multiplication causes destruction of hair-root and finally of the papilla. They sometimes invade the bulbous portion of the root itself, but rarely to any extent, and probably never involve the free portion of the shaft. When the growth has filled

the follicle it appears at its orifice as the white speck already alluded to, and by further increase constitutes the substance of the typical crusts.

Treatment.—This may be accomplished as follows: Let the scalp be oiled twice a day for two or three days Then with a small spatula remove all the superficial crusts. Some of them will be found quite adherent, but a dull-pointed knife-blade and a little patience, will be all that is required. If, now, a mercurial or sulphur ointment be applied, the disease will be prevented from showing itself on the surface, and will be, *to all appearance*, cured. If these applications, however, be discontinued under the supposition that the disease is in reality cured, a few weeks will suffice to dissipate this error, as the disease will reappear, and in a short time be in as bad a state as before treatment, due to the fact that the hair-follicles still contain the spores in abundance. It is necessary, therefore, to destroy them *in situ*, by the aid of such medicinal agents as will, by local contact, put a stop to their further development and growth. These medicinal agents are called *parasiticides*. In order to destroy the spores, it is neces-

sary that the drug made use of shall gain entrance to the follicles, which it cannot do if they are blocked up with the hairs. Removal of the hairs then becomes necessary. This is effected by epilation, or removing the hairs one by one with a pair of suitably constructed forceps (Fig. 19).

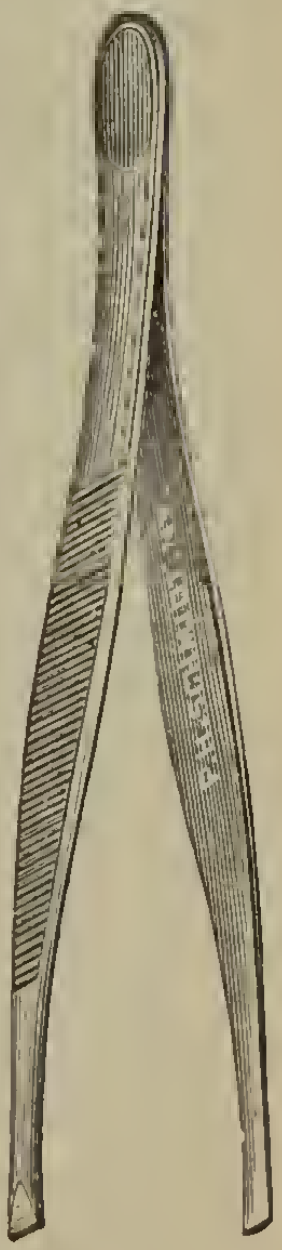


FIG. 19.—EPILATION FORCEPS.

If the disease is at all extensive, epilation of the entire surface at one sitting is impracticable. The best way is to proceed systematically and remove *every* hair from a limited area —say one or two square inches. When the patience of the surgeon or of the patient is exhausted, desist for the time and apply to the denuded spot a suitable ointment or lotion. For this purpose nothing is more convenient than a one-half to one per cent. solution of bichloride of mercury in water. The follicles, deprived of their hairs, permit a ready entrance of the solution, which, coming directly in contact

with the spores, destroys them, or perhaps simply kills the epithelium of the inner root-sheath, which, when exfoliated, carries with it the infiltrating fungus. On the following day another portion of the scalp is epilated and the lotion applied as before, to the portion just denuded and also to that previously operated on. This procedure is repeated day by day until the whole of the affected region has been deprived of hair. If, now, *all* the hairs have been extracted and the lotion has effectually destroyed the intrafollicular fungus, the disease is, of course, at an end.

Such a result, however, is rarely attained so easily, as many hairs will be broken in the attempt at extraction, and many spores will escape the action of the parasiticide. These, of course, would constitute new foci of disease. It is, therefore, necessary to continue the use of the parasiticide until the broken hairs have grown to a sufficient length to again permit of an attempt at their extraction. After a week or so, the epilation should be resumed, and repeated a third or fourth time if necessary. Finally, if the growing hairs appear to present a healthy aspect, treatment may be temporarily sus-

pended. The patient, however, must be kept under close observation, and the first indications of relapse immediately taken in hand.

In Favus of the general surface, epilation and the elaborate treatment just mentioned are unnecessary, as the disease can be readily cured by much simpler means. If at the commencement, when the erythematous disks only are apparent, a few applications of the tincture of iodine will be sufficient to dissipate the disease. If later, when the crusts are present, these should be picked out with the point of a knife and the iodine freely applied. After sufficient has been used to secure thorough desquamation of the epidermis, it will usually be found that the disease has been cured.

In many, if not most cases of Favus, it will be found that the general health is below par. Under these circumstances, *constitutional* treatment will be advisable. The drugs most frequently indicated are cod-liver oil and iron.

TRICHOPHYTOSIS.

Trichophytosis is a contagious phyto-parasitic affection, characterized by the develop-

ment of circular patches, commonly known as ringworm, on various parts of the surface of the body. These patches increase centrifugally, and are accompanied with profound alterations of the hair on the affected parts.

Trichophytosis depends on the lodgment and growth of a parasitic fungus called the *Trichophyton Tonsurans*, the discovery of which is due to M. Gruby, in 1842.

The fungus itself consists of spores and mycelial tubes. The spores are mostly round and much smaller than those of the *Achorion Schönleineii* described in connection with favus, and the mycelium is usually not so abundant. The favorite, if not exclusive, seat of the parasitic growth is in the hairs and hair-follicles. After it has gained a lodgment in the follicle, it almost immediately invades the hair-root, infiltrating it abundantly among and between the longitudinal fibres of the hair. This infiltration proceeds in an outward direction, until it has extended a short distance (one-sixteenth to one-eighth of an inch) beyond the surface of the skin. The spores separate the fine fibres of the hair, and by pressure force them apart. The portion of hair just without the follicle, and no longer

possessing the support of the follicular walls, yields to the rupturing force of the parasite, and breaks off, leaving a ragged and brush-like extremity protruding from the follicle. If a hair be extracted and examined under the microscope, it will exhibit the appearances shown in the annexed cut, Fig. 20.



FIG. 20.—PORTION OF A HAIR INFILTRATED WITH THE SPORES OF THE TRICHOPHYTON TONSURANS.

By the aid of these spores the disease is conveyed from one to another under circumstances that will be noted later. The disease is met with in some of the lower ani-

mals, and may be conveyed from them to man.

Varieties.—There are four principal varieties of Trichophytosis founded on the different appearances and course presented by the disease according to the locality which is invaded by it. These varieties are known as *Trichophytosis capitis*, *Trichophytosis barbæ*, *Trichophytosis corporis*, and *Trichophytosis genito-cruralis*. As the varieties differ in many essential respects, both as to appearances, course, and appropriate treatment, they will be separately described.

TRICHOPHYTOSIS CAPITIS.

Trichophytosis capitis is a disease of early life, occurring among infants and children, and never, so far as the author's experience goes, among adults. It is characterized by the appearance upon the scalp of one or more small, round, white, scaly patches, apparently deprived in part or wholly of hair. The patches extend in a centrifugal manner with greater or less rapidity. They increase in size, and others appear in the neighborhood, and if the disease is unchecked, soon fuse together until more or less of the scalp is involved, when the ap-

pearances noticed in the smaller patches are observed over the whole surface. The ultimate result, if unchecked by treatment, is involvement of the entire scalp, with destruction of the hair-follicles and permanent loss of hair.

On close inspection, the apparently bald portions of scalp in the early stages of the disease are found in reality to be covered with innumerable short hair-stumps projecting a little above the surface. The appearance of this short stubble is very peculiar. The broken hairs do not resemble closely clipped healthy ones of the same length, but are lustreless, and of lighter color than the neighboring normal hair. Their extremities are rough and often brush-like, due to splitting up of the shaft, and separation of the fibres by the spores of the *trichophyton*. Sometimes a few hairs of normal length will be scattered over the affected surface.

The affection is exceedingly contagious, the most so of any of the phyto-parasitic diseases of the skin, and is frequently conveyed by the use of hats, brushes, etc., which have been previously used by persons affected with the disease. It is also

probable that the spores may be conveyed some little distance through the air, as the affection sometimes spreads rapidly in schools, even where ordinary precautions are employed.

If a patch commences near the border of the scalp, by farther extension it may spread down upon the forehead, temples, or neck, in which case the portion beyond the scalp presents the features peculiar to *Trichophytosis corporis.*

Diagnosis.—In its early and advancing stages little or no difficulty should be experienced in the diagnosis. The circular shape and the broken hairs are sufficiently characteristic, and are not met with in any other affection of the scalp. In the stage of decline, however, especially after a case has been subjected to treatment, recognition of the affection may be more difficult. Under these circumstances the microscopical appearances of the hairs will be sufficient to determine the matter.

Prognosis.—This variety of trichophytosis is very difficult to cure, especially if the disease have gained any headway. It can, however, be cured by appropriate and persistent treatment.

Treatment.—The principle that underlies the treatment of Trichophytosis capitis is the same that prevails in the management of favus. This is to destroy the fungus *in situ*. This may be accomplished in various ways. One method consists in the application of croton-oil to the affected surface in such a manner that a pustular inflammation of the follicles shall be induced. This loosens the hair and destroys the fungus. A careful trial of this method has satisfied me that it is of decided service, but it is rendered still more efficient by combining it with epilation. It may be carried out as follows: Melt together equal parts of croton-oil and white wax. When the mass is fluid pour it into a hollow cylinder made of paper, and about one-half inch in diameter. When cold it acquires a convenient and suitable consistency. Epilation is then resorted to, and in as thorough a manner as possible, after which the mixture of wax and oil is rubbed into the patch. This will usually excite the requisite degree of inflammation. After this has subsided careful microscopical examination of the hair should be made, and the epilation and oil again employed, if necessary. In very young

children the foregoing application will prove too irritating, and its strength should be reduced. In which case equal parts of croton-oil, cocoa-nut-oil, and white wax, melted together, will give a stick of suitable consistence and milder in its action. By the persistent and intelligent use of these means the trichophytosis will be ultimately cured.

TRICHOPHYTOSIS BARBÆ.

SYN: Mentagra parasitica; Sycosis parasitica.

Definition and description.—This is an affection due to the lodgment and development of the Trichophyton tonsurans on the hairy parts of the face in adult males. It appears upon the cheeks, chin, and upper lip, and at first as a very slightly elevated, circular, reddish patch, upon which a few scales may be perceived. This patch extends centrifugally, and if the hairs are sparse exhibits a tendency to assume a normal aspect at its centre, thus forming a ring, whose advancing periphery is a little raised above the surface. If, however, the hairs are plentiful, it mows them down as in Trichophytosis capitis, and leaves nothing but a bushy stubble. Later, other and similar patches appear which, by mutual exten-

sion, may unite with each other, modifying the typical circular form of the lesions.

If the disease last for any length of time, additional phenomena may be presented. These are due to secondary inflammation excited by the presence of the parasite, and may consist in papules, tubercles, pustules, small abscesses, and even ulceration, and may be present to such an extent as to render the affection exceedingly disfiguring. The extent and severity of these lesions will vary with the individual peculiarities of the patient; some cases presenting little more than the special trichophytic appearances, while others exhibit the secondary lesions to a marked degree.

Trichophytosis barbæ, like the other varieties, is exceedingly contagious, and is frequently transferred from one to another by the indiscriminate use of unclean shaving appliances. It may also be contracted from persons suffering from other forms of trichophytosis.

Treatment consists in epilation and the application of an anti-parasitic lotion or ointment. The tincture of iodine, the bichloride lotion, or a mercurial ointment, will usually prove sufficient. Treatment

should not be abandoned until all chance of relapse is past.

TRICHOPHYTOSIS CORPORIS.

This affection is due to the development of the trichophyton on portions of the surface that are but poorly supplied with hair, or rather on portions on which the hairs are exceedingly minute and rudimentary, as upon the greater part of the body.

It commences as a slightly scaly erythematous spot. This erythema sometimes appears to be on a level with the surrounding surface, but in other cases quite an appreciable degree of elevation may be perceived. As the spot enlarges it shows a tendency to heal in the centre, so that in a short time we find a reddened ring circumscribing apparently healthy integument. The ring enlarges indefinitely until it may have attained a diameter of several inches. At last it begins to die out at various points along its periphery, making the ring incomplete, until finally it disappears entirely. In the meantime, however, other rings may arise elsewhere, and exist in any number, and, if contiguous, may coalesce at some point of their circumference and form a fig-

ure of eight, or if several rings unite various irregular figures may result.

Treatment.— Under ordinary circumstances the treatment of trichophytosis corporis is exceedingly simple, a few applications of the tincture of iodine being usually sufficient to remove it. If the color of the iodine is objected to, applications of bichloride, or of mercurial or sulphur ointment may be employed instead.

TRICHOPHYTOSIS GENITO-CRURALIS.

This affection is located in the genito-crural region, as its name implies, and usually commences as a slightly elevated patch at the upper part of the thigh near the scrotum. As the patch increases it pales in the centre, forming a ring whose advancing border is sharply defined, and more elevated than the other portions. As the ring increases in size it may extend to the scrotum, descend for some distance upon the thigh or mount upon the abdomen. A similar ring sometimes forms on the scrotum where it lies in contact with the thigh. Not unfrequently the other thigh and other side of the scrotum become affected in the same manner, thus giving the affection a

somewhat symmetrical appearance. The natural moisture of the parts is increased by the irritation of the fungus, and together with the macerated scales, and perhaps crusts, may give the eruption somewhat the appearance of an eczema. As the affection advances, the hairs become disorganized as in the other varieties of trichophytosis, and papules, vesicles, and pustules may occur.

The most successful treatment with which I am acquainted consists in the application of equal parts of tincture of iodine and collodion to the advancing borders of the eruption, with a mild chrysarobin ointment to the central portions. After the parasite is destroyed soothing applications of zinc ointment.

CHROMOPHYTOSIS.

Chromophytosis is an affection of the skin characterized by the appearance of superficial yellowish-brown macules or patches on the upper part of the body—most frequently met with on the chest. It commences by the appearance of macules, very slightly, if at all elevated above the surface of the skin, and covered with barely perceptible scales. It usually begins upon the

chest, extends gradually over the greater part of this region, mounts upon the neck, and descends to the abdomen. It may also stretch around to the back and cover this region. It never invades the face, and seldom, if ever, the limbs. The eruption may consist of a few large patches, with very frequently a large number of smaller ones upon the outskirts, or it may be composed almost entirely of macules from the size of a pea to that of a dollar. The patches are sometimes slightly scaly. The progress of the affection is slow, so that months and even years may elapse before it becomes generalized over the trunk. The affection occurs more particularly in persons who are out of health, and not unfrequently appears during the course of phthisis and syphilis. It is most likely to be met with in those who are warmly clad and wear flannel next the chest, and who, at the same time, are negligent in matters of cleanliness. It rarely, if ever, occurs in those who make a practice of bathing daily. The affection is believed to be contagious, but I have never been able to trace a case to this cause.

Chromophytosis depends on the germination and growth, among the epidermic cells,

of a microscopic fungus, discovered by Eichstedt, in 1846, and known as the *microsporon furfur* (Fig. 21). The spores are, as the name implies, exceedingly small, but of varying size and uniformly round; the mycelium is sometimes simple and sometimes branched.

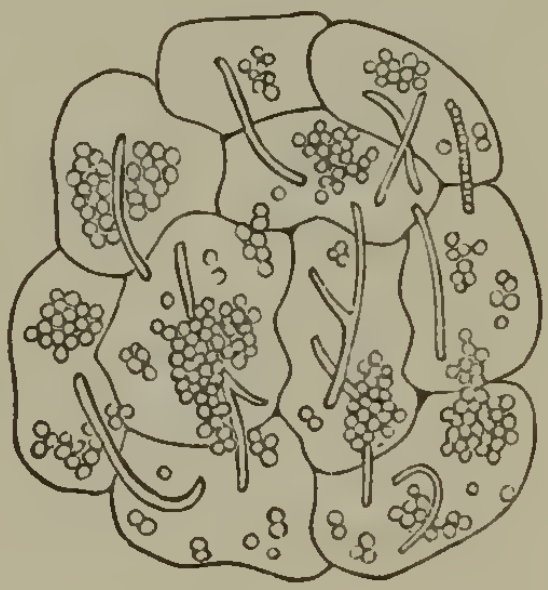


FIG. 21.—MICROSPORON FURFUR.

Chromophytosis, as well as the other vegeto-parasitic diseases of the skin, are favored and promoted by cachetic conditions, and any indications of ill-health on the part of the patient should be carefully considered and remedied, if possible. To this end, good air, good food, suitable clothing should be secured. In addition, proper internal medication, either ferruginous, cinchonic, or oleaginous, should not be

forgotten. If the patient also suffers from phthisis or syphilis, the usual constitutional treatment for these diseases should be maintained. These points being attended to, the local treatment is then to be decided on. As the cause of the disease is a fungus flourishing among the epidermic cells, the first and main indication is to get rid of it. This can only be accomplished by means that will succeed in causing the death and exfoliation of the stratum corneum. The epidermicide which I at present prefer, and find amply sufficient, is chrysophanic acid. A five per cent. ointment is to be rubbed into the patches once or twice daily, until sufficient irritation has been produced to loosen the outer epidermic cells. When these begin to loosen, the patient is thoroughly rubbed with green soap, put into a warm bath, scrubbed with a soft flesh-brush, and the affected epidermis removed. After the bath he is thoroughly dried, rubbed with an emollient, and put to bed until the next day. If the treatment has been sufficiently thorough the patient is rid of his disease. In the majority of cases, however, this is not the case.

IMPETIGO CONTAGIOSA.

Impetigo contagiosa is a contagious affection of the skin characterized by the appearance of vesicles subsequently drying into peculiar crusts. It commences not unfrequently with constitutional symptoms of a pyrexial character, varying in severity in different cases. In two or three days, one or more small vesicles may appear upon any portion of the cutaneous surface. These gradually enlarge for a few days, then dry into thin light yellowish or straw-colored scabs or crusts. The vesicles and crusts may be indefinite in number, and successive eruptions may prolong the disease for several months. During the progress of the affection, associates—adults as well as children—may contract it. Inoculation with the fluid contained in the vesicles will give rise to similar lesions.

Removal of the crust reveals a slightly reddened surface, with very little or no moisture, and no ulceration or even erosion of the surface, the lesion being extremely superficial. After the spontaneous fall of the crust, a bluish-red macule or stain is left, which gradually fades away.

The affection sometimes follows shortly after vaccination, generally within the second or third week after falling of the crust.

The disease is eminently contagious, and I believe the contagious element to be a fungous growth which is plentifully distributed through the crusts. The same fungus is found in vaccine crusts, which explains our ability to trace the affection in so many cases to a recent vaccination.

The treatment of this affection is exceedingly simple ; all that is necessary is to remove the crusts and to apply a mercurial or a sulphur ointment, two or three times a day, and in a short time all traces of the affection will disappear, except the macules which mark the previous site of the eruption. These gradually fade, and ultimately the skin assumes a normal aspect, without mark or scar.

MILIUM.

The affection known as Milium is characterized by the development, in the superficial layers of the skin, of a number of minute white papules looking something like small grains of sand. They are in reality sebaceous follicles, with occluded open-

ings, distended by sebum. Their favorite seat is the neighborhood of the eyelids, although they are sometimes met elsewhere. They are usually quite numerous if the affection has existed for any length of time, but their course is indolent; they are painless and unaccompanied with inflammatory symptoms. They are most frequently met with in females, and rarely appear except in adults.

Milium rarely, if ever, produces any inconvenience except so far as it detracts from the comeliness of the visage. The tendency of the affection is toward increase in the number of the little granules, but they rarely attain a size larger than that of the head of a large pin.

The causes which produce this occlusion of the sebaceous follicles are absolutely unknown.

Treatment.—The principal indication is to remove the little granules as soon as they become large enough to permit of operative procedure. The instrument usually employed for this purpose is an ordinary lancet with which the stratum corneum that covers them is divided. The little grain is then dug out with the point of the instru-

ment. To facilitate their extraction we have employed a needle-like instrument with a curved lanceolate point, as shown in Fig. 22.

This little needle is quite similar to the one used by oculists in connection with the treatment of cataract. The needle is introduced in such a way that nearly the whole of the epidermis is removed from above the granule. Then, by a dexterous turn, the little tumor is pried out. After a little practice a large number can be removed in a very short space of time.



FIG. 22. MILIUM NEEDLE

ALOPECIA AREATA.

Alopecia areata is an affection characterized by the loss of hair from the scalp or other parts. The affection commences by small circumscribed, usually round patches, which gradually enlarge, until contiguous ones unite. The parts most frequently affected are the scalp and region of the head, though all parts of the body may be affected, and all of the hair be shed. The bald patches are surrounded by apparently healthy hair.

The causes of alopecia areata are not definitely known. A few, chiefly French authors, believe that it is due to a fungus, which they call the *Microsporon Audouini* and hence classify the affection with the



Fig. 23.

Phytoses, or diseases depending on vegetable parasites. The majority of observers do not accept this view, but believe that the affection is due to a circumscribed asthenia, depending on defective innervation.

The treatment of this affection is simple. If the patches have not yet acquired a very large size, the marginal hairs for $\frac{1}{16}$ inch to $\frac{1}{8}$ inch are carefully epilated. This done, the further treatment will depend on whether the patch is apparently congested and slightly elevated, or whether depressed and pale. If in the former case, I have found a local application of nux vomica of great service. From ʒ ss. to ʒ j. of the fluid extract to an ounce of simple or rose-water ointment, may be thoroughly rubbed into the affected parts once or twice a day. Another convenient application consists of equal parts of tincture of nux vomica and castor-oil, or a two per cent. solution of strychnia in oleic acid.

On the other hand, if the scalp is pale and depressed, an active stimulant is required, and for this purpose I am in the habit of using the ordinary *Collodium cum Cantharide* of the pharmacopœia. This being applied sometimes blisters, but quite as frequently fails to. If it blisters, the next dressing will be a little simple cerate until the blister has healed. This is followed by a mild stimulating application, as castor-oil with a little tincture of cantharides or spirits

of rosemary, or a lotion or ointment of corrosive sublimate, one to two grains to the ounce, or the turpeth ointment above mentioned. If, at the end of two weeks or so, there is no sign of new hair, the cantharidal collodion is again applied. When new hair begins to appear, it is usually quite fine and delicate, and of a much lighter color than normal. As soon as it shows itself the razor may be brought into requisition, and used two or three times a week, mild stimulants to the scalp being continued. In addition to the drugs mentioned, I have sometimes used croton-oil, cardol, ammonia, and other substances having an analogous action.

LICHEN ÆSTIVUS.

This affection, commonly known as "prickly heat," is met with in hot climates generally, and also in the United States, chiefly during the months of July and August. It appears as small red pointed papules scattered over the surface, and sometimes interspersed with small vesicles. The neck, face, arms, and legs appear to be the portions most frequently and severely affected, though no parts are exempt, except the scalp, the palms of the hand, and soles of the feet. The eruption itself is insignificant,

but as it is often accompanied with severe itching and pricking sensations, it demands relief. The affection is manifestly connected with a high temperature, and it may be expected when the average heat runs above 80°.

The anatomical seat of the affection has not been positively determined. The affection is to be distinguished from scabies and eczema, the only diseases with which it is liable to be confounded by the inexperienced.

Treatment.—Generally relief can be afforded by sedative applications, as the *lot. plumbi et opii*, or the *lot. flava.* If troublesome at night, comfortable rest can usually be secured by a small dose (gr. ss.) of opium and sometimes decided amelioration. Free action of the bowels and kidneys is likewise of great service. We have also seen the most marked benefit from two or three Turkish baths.

PERNIO.

Syn: Erythema pernio; "chilblain."

Definition and description.—This affection, so common in cold climates, affects, by preference, the feet, hands, nose, and ears, and consists in a condition of chronic con-

gestion, accompanied with lowered local vitality, resulting from partial congelation of the parts. It is characterized by redness, usually with a purplish tinge, together with more or less pain of a burning character. In severe cases fissures and ulcerations sometimes form. The affection, or rather the disposition to it, often lasts for years, giving little or no trouble during the summer, but causing inconvenience and suffering as cold weather sets in.

Etiology.—The affection is due, in most cases, to a partial freezing of the tissues, followed by a rapid thawing out; as, for instance, a person, after prolonged exposure to cold, imprudently enters a heated room, and seeks a place nearest the fire. Tramping about in melting snow may reduce the temperature not quite to the freezing point, but sufficiently near it to materially retard the circulation. If now the feet be gradually and slowly warmed by friction, etc., little harm may result, but if rapidly warmed and overheated before a hot fire, the reaction will be too sudden, and chilblains are apt to result.

Treatment.—Remembering that the condition is one of lowered local vitality, the

chief indication will be to employ stimulating applications. Those most in vogue are frictions with camphorated oil, turpentine, capsicum, and the like. For a number of years the author has employed the galvanic current with the utmost benefit. When the feet are affected, the patient is seated so that one buttock rests on a sponge-covered plate connected with the positive pole of the battery. The corresponding foot is then placed in a basin partially filled with salt water, and into the basin the other electrode is placed. The current is now permitted to flow, and its strength is so regulated that the patient shall just perceive a slight sensation of warmth. The *séance* usually lasts for about ten minutes for each foot, and is repeated two or three times a week. The current seems to more or less completely restore the vitality of the part; and under its influence I have seen obstinate pernial ulcerations heal without the employment of other treatment. In milder cases the relief of the itching and burning is sometimes very striking. Possibly the faradic current would act as well as the galvanic, but on this point I cannot speak from experience.

VERRUCÆ.

Verrucæ, or "warts," are papillary excrescences of the derma, due to hypertrophy and prolongation of the papillæ, with hyperplasia of epidermis. Their favorite seat is the fingers and hands. They may, however, occur elsewhere, as upon the forearms and other parts of the body.

The *cause* of their growth is unknown. They sometimes undergo spontaneous involution, and disappear as mysteriously as they came.

The *treatment* usually recommended is to pare down the wart with a sharp knife, to the level of the surrounding skin, and then to apply some caustic, as the nitrate of silver, or glacial acetic, or one of the mineral acids, repeating the application until the wart is destroyed. The chloride of ammonium frequently applied will sometimes remove them.

The writer usually removes them by means of the dermal curette.

DISEASES OF UNCERTAIN NATURE.

CHAPTER XXI.

ERYTHEMA.

Definition and description. — Erythema consists in a circumscribed or diffused patch, or several such patches, characterized by redness, a little heat and sometimes itching. The patches may be of temporary duration only, or may persist for a considerable time. The name is not strictly applicable to any definite and particular disease, but should rather be taken in a generic sense as the designation of a symptom, implying the idea of superficial congestion. Thus the redness which follows exposure to the sun or to artificial heat has been termed *erythema caloricum;* that which follows the application of irritating substances like mustard or capsicum, has been termed *erythema ab acribus;* that which is induced

by the pressure of badly fitting garments—garters, stays, pads, straps, trusses, etc.,—has been termed *erythema traumaticum.* These are all trivial affairs, which soon disappear when the cause which produced them no longer continues in action. There are, however, other forms of congestion or simple hyperemia of the skin that appear to be due to internal causes. Such, for instance, as the temporary flushings of the face that occur in women about the time of the menopause, and which last sometimes for a few minutes only, sometimes for an hour or more. When these are frequently repeated, the hyperemia becomes more persistent, giving rise to a chronic condition which, in time, may lead to a pronounced rosacea.

In certain cases, dyspeptic conditions and hepatic derangements may give rise to hyperemic conditions of the face, which may, with equal propriety, be called erythema.

In addition to the foregoing there are two definite affections of the skin that have received the generic name of erythema with a qualifying addendum: I allude to the so-called *Erythema multiforme*, and *E. nodosum.* These will be considered separately.

ERYTHEMA MULTIFORME.

Definition and description.—WILLAN, the father of English dermatology, described certain cutaneous affections under the titles Erythema marginatum, E. papulatum, and E. tuberculatum; later writers added to these the expressions E. circinatum, E. vesiculosum, etc. HERBA has properly, we think, included them all under the general name of *Erythema multiforme*, implying an erythematous affection of multiple lesion.

The eruption may consist of patches of redness, over which circumscribed elevations also red are scattered. These elevations may be few or plentiful, and may vary from one-eighth to three-fourths of an inch or more in diameter. The small ones may, according to size, be called papules or tubercles, while the larger ones, which are always flattened, may assume the appearance of an elevated ring, around which a second or third ring may develop.

These various lesions rarely persist more than a week or ten days, at the end of which time they gradually subside and disappear, leaving after them bluish stains which last a few days longer. After the

disappearance of the first eruption, or even while it is still in full efflorescence, a second crop of lesions may come out, and after this a third, prolonging the trouble in this way for several weeks or months. The eruption may consist simply of papules or of tubercles, or more frequently several or all of the lesions mentioned above may coexist in varying proportions. The favorite seats of Erythema multiforme are the backs of the hands, wrists, the feet and ankles. The eruption, however, may occur upon any part of the surface, and sometimes becomes quite general.

The outbreak of E. multiforme is sometimes characterized by prodromata of a mild febrile character, which exist for a day or two before the appearance of the cutaneous lesions, and subside as the latter develop. The subjective local symptoms are slight, and may consist in a little burning or itching at the seat of the eruption, but rarely sufficiently intense to cause much inconvenience. The eruption is more frequent in spring and autumn than at other seasons, and in some individuals exhibits a tendency to recur at these times.

For the last few years we have adopted

the following plan of treatment (the same that we recommend in acute urticaria) with very satisfactory results. In adults, from five to ten drops of the fluid extract of ipecac. are given every ten minutes until the patient vomits. As soon as his stomach is calmed down a little and the patient feels capable of the requisite exertion, he is placed in a Turkish bath until he sweats freely. He is then shampooed in the usual manner, dried off, and put to bed. The next day another Turkish bath is taken, and, if necessary, a third. In one instance we have known the efflorescence to disappear while the patient was taking his first bath, and no further eruption occurred. In default of the Turkish bath, a wet pack or a full dose of Jaborandi might be tried. In cases of longer standing apparent benefit has followed the use of belladonna, pushed until physiological effects are developed, and quinine in full doses. Several years ago, in a case then under my care, coffee appeared to be the exciting cause, and relinquishment of this beverage was followed by permanent disappearance of the eruption. In a few cases of this sort the cause of the trouble can be discovered, and rational treat-

ment be adopted; in many, however, this cannot be done, and we must either try purely empirical treatment or give a *placebo*, and wait for a spontaneous recovery.

ERYTHEMA NODOSUM.

Quite different from the affection last described is the one to which the name of *Erythema nodosum* has been applied. This disease is characterized by an eruption of reddish and somewhat acuminate tumors from the size of a small cherry to that of an egg, and usually situated upon the lower extremity between the knee and ankle. The number of tumors varies. There may be but half a dozen of them when the affection is confined to the lower extremities, or two dozen or more when diffused over other regions, as the abdomen and upper extremities. Not unfrequently the affection is ushered in by slight fever, which subsides as the eruption develops. At first the swellings are a little painful and tender on pressure, with a feeling of tension in the affected parts. The color is at first a light red, as from an active hyperemia; it soon becomes darker, however, and assumes a purplish tinge which gives place to a yellow-

ish green, that in time fades away with the diminution of the swelling in the course of ten days or two weeks. The appearance presented is very like that of a bump on the forehead, so common in childhood as the result of a slight blow. It is this aspect that has given it the name of *Dermatitis contusiformis.* The tumors may not all appear on the first day of the eruption, but may take two or three days before the crop is all out. As the first crop subsides, a second may appear, as in the case of *Erythema multiforme,* and even a third or fourth, prolonging the affection in this way for six weeks or two months.

The treatment of this affection is simple. Seen at the commencement, if there be the slightest febrile action, or elevation of temperature, aconite in apyretic doses should be given and continued for at least a couple of days; later, iron in moderate quantities is of service, and, perhaps, also the mineral acids. Locally, I apply compresses of hamamelis for the first few days, to be succeeded by arnica (root) as the lesions begin to assume the appearance of a bruise. An elastic bandage materially hastens the resolution of the tumors.

CHAPTER XXII.

ELEPHANTIASIS.

This name is given to a disease characterized by great hypertrophy of the skin and subcutaneous tissues of the lower limbs and genitals, an affection which is specially frequent in certain tropical countries, but met with occasionally in the temperate zones.

Course.—The course and symptomatology vary somewhat in different cases. In the majority, however, the disease is ushered in by a chill followed by a febrile attack. These symptoms are accompanied by inflammatory swelling of one of the legs, somewhat resembling a mild erysipelas. After a few days the febrile symptoms subside, followed by more or less complete disappearance of the local inflammatory trouble. As a rule, however, the swelling does not entirely disappear, but leaves the leg a little larger than before the attack. After a varying and uncertain period, which may be a few weeks or even months, a recurrence of the febrile attack takes place with renewed

swelling of the limb. Again the abatement of the symptoms leaves the limb a little larger than before.

These phenomena are renewed from time to time, each occurrence being followed by a permanent addition to the size of the affected member. Later the febrile attacks cease, but the limb nevertheless continues to slowly enlarge until it may ultimately attain an immense size. Sometimes the affection is confined to the foot and ankle, or to the foot and leg, or again the thigh may be involved. Occasionally both limbs are affected, but as a rule the disease commences in one, long before it appears in the other. In addition the scrotum or penis, or both, may likewise enlarge, *pari passu* with the diseased limbs, or the genitals may alone be affected. In the female the labia majora, to a less extent the labia minora, may undergo the same changes.

Treatment.—Palliative and antiphlogistic measures during the febrile attacks are of course indicated, and quinine in large doses alone, or in combination with opium, would seem to be the remedy most likely to control or moderate the symptoms. In the intervals between the paroxysms, and in the later



FIG. 24.—ELEPHANTIASIS.

stages of the disease, internal medication appears to be without influence. Local treatment alone gives promise of relief. If the lower extremity be the part affected, methodical compression by a bandage or elastic stocking will palliate the trouble to a certain extent, but is not likely to prove curative. Ligature of the femoral artery has been repeatedly tried but with varying results. If the genitalia are affected, amputation of the redundant parts affords efficient and permanent relief.

FIBROMA.

This name is applied to certain tumors of varied size and form, which sometimes appear upon the skin. They may be simply semi-globular protrusions, or form sessile tumors with a comparatively small pedicle. In some cases but a single tumor is present, in others two thousand have been counted.

Neither internal nor external medication exercises the slightest influence on these growths—excision is the only remedy.

FURUNCLE.

Definition and description.—A furuncle or "boil," is a small or moderately sized,

red and painful inflammatory elevation of the skin. Its first appearance is usually heralded by a sharp stinging sensation followed by pruritus. A papule then appears and gradually increases in size and becomes hard and painful. In a day or two a whitish point appears at the apex. This small collection of pus enlarges until nearly the whole tumor becomes purulent, constituting a small abscess. Later, this little abscess bursts and discharges its pus, and, in addition, a firm cylindrical, whitish substance, commonly termed the "core." Reparative action then commences, and recovery takes place, with a depressed scar varying with the size of the boil. Furuncles may occur singly, or successively, or in crops of three or four at a time, and a succession of crops keep up the trouble for several months or longer.

The *diagnosis* and *prognosis* of Furuncle are familiar to all.

Etiology.—Boils were formerly regarded as evidences of excessive good health, or as the results of high living and overfeeding, and a crop of them was looked on as a good sign, and they were even spoken of as "healthy" to have. This view is now quite

abandoned, and furuncles are more generally regarded as evidence of depraved nutrition; their exciting cause, however, is unknown.

Treatment.—The indications for treatment are to relieve the existing furuncle and to prevent the occurrence of others. If a furuncle be seen at the very commencement—that is, while it exists simply as a papule, before the formation of pus—it may be often aborted. This may be accomplished by touching it with a white-hot needle, or sharp point of a Paquelin cautery. Instead of the actual cautery, nitrate of silver may be applied. The part should be first washed clean, to remove grease, etc., from the surface, after which the solid stick should be thoroughly applied. This treatment, when adopted sufficiently early, usually prevents the further development of the furuncle. If pus has already formed, the boil should be allowed to go on to maturity without surgical interference. A little belladonna or stramonium ointment may be applied to ease the pain, and a warm poultice to hasten maturation. When fully "ripe," if it has not already opened, it may be incised and the contents evacuated. It should then, if possible, be dipped in water as hot as can

be borne for ten or fifteen minutes, then dried, and the cavity filled with a little pellet of absorbent cotton or marine lint, over which should be placed a piece of sheet lint smeared with a little simple cerate or, better, perhaps, equal parts of stramonium and resin ointments. The boil should not be poulticed after opening. It has often been noticed, when a boil is freely poulticed after opening, that a number of fresh ones appear in the vicinity. I presume that this is due to a little of the pus gaining entrance to the sudoriparous or sebaceous follicles and, by its irritant properties, exciting furuncular inflammation. A furuncle should never be opened prematurely. The core of slough remains attached by its deeper extremity for some time, and until this is loosened and discharged the boil will not heal. If prematurely opened the pus is discharged, but the core remains attached much longer than if the furuncle were permitted to fully mature.

The constitutional treatment will involve the use of remedies called for by any manifest impairment of health, and particularly iron, quinine, and the mineral acids. The prophylactic or, as it might be called, the

specific treatment, intended to break up and remove the tendency to furuncular inflammation, calls for the employment of a different class of drugs.

Among these the sulphite of sodium, in twenty-grain doses two or three times a day, has been highly recommended. Personally, I have used to advantage the "syrup of the hypophosphites" in dessertspoonful doses three times daily. Just at present the drug most in vogue is the Sulphide of Calcium. There is no doubt, however, as to its efficacy. It should be given in 1-10 grain doses four or five times a day.

KELOID.

This affection is characterized by the development upon the skin of one or more flattish, smooth-surfaced tumors of varying shape and size. In some cases the natural color of the skin is preserved, in some it is heightened, but more frequently it is a trifle paler than the normal, or it may be quite white, often possessing a marked cicatricial aspect. In fact if it were not for its elevation, keloid might often pass for an ordinary cicatrix. Sometimes arms or processes pro-

ject from the main body of the tumor, as thin bands into the surrounding skin.

The keloid tumors gradually increase in size up to a certain point, at which further progress ceases. They then remain stationary for the rest of the patient's life. In very rare instances they undergo involution and finally disappear.

Keloid may arise spontaneously, or subsequent to some wound or local irritation of the skin, and writers have consequently distinguished two varieties of the affection: the one which originates spontaneously being called *true* keloid, and the other *spurious.*

Treatment.—At first thought excision would seem to be an appropriate measure of relief; but experience has shown that in the great majority of cases the disease will certainly return, and often more extensively than at first. Excision, therefore, should not be regarded as likely to result in a radical cure, and should only be employed when the situation, or great size of the tumor, renders its removal imperative, or when the temporary relief thus gained more than counterbalances the inconveniences of an operation. Removal by caustic promises no

better results than the knife. It must be admitted then that we are without any means, that can be relied upon, which will enable us to successfully control this curious disease

LICHEN PLANUS.

This is a somewhat rare disease, and is characterized by the development of flat papules upon various parts of the body. They are usually of a dull red or somewhat purplish color, with a characteristic central depression. The affection greatly resembles certain papular syphilides, and in fact a diagnosis between the two may be exceedingly difficult, if we judge by aspect alone. The concomitant symptoms and the history may alone enable us to judge between the two affections. The affection is essentially chronic in its course, and the papules upon subsiding leave dark stains, which persist for some time before finally fading away.

Treatment.—Concerning this, Wilson, who has had an extensive experience with this disease, says : " Our first object should be to regulate the functions of the economy wherever any disorder may be apparent ; in the next place we should endeavor to re-

store the vigor of the system by tonic remedies, such as bitters, quinine, nitro-muriatic acid, and chalybeates; and these objects being effected, we may finally have recourse to the tonic-nutritive operation of arsenic." Locally he recommends a lotion of the bichloride of mercury (two grains to the ounce of bitter almond emulsion). The eruption is frequently rebellious, but usually yields in the end to treatment.

Taylor has recently contributed the result of his observations concerning lichen planus, and has derived benefit from the use of oxidizing agents and alkaline diuretics.

LICHEN RUBER.

This name is given to an eruption to which attention was first called by Hebra. The following description is an abridgment of the one which he gives in the first edition of his work:

The affection consists in an eruption of papules, which always remain such, never changing into vesicles or pustules, and never undergoing any modification except when the eruption of new papules changes a discrete into a confluent lesion. The papules always present an intense red color except

when covered with scales. In the beginning the papules are miliary, and each covered with a fine scale. They never increase in size, but preserve their original volume throughout the whole course of the disease. Fresh oapules may arise between the original ones, or at a distance from them. When the papules are in contact, they form continuous patches of variable size and contour, red, infiltrated, and covered with scales. The entire surface may be invaded in this manner. In advanced cases the pruritus may be intense.

The condition of the general health varies with the extent of the eruption. At the beginning it may not be appreciably affected, but as the disease advances, the organic functions deteriorate and nutrition suffers. The appetite or sleep may not be much disturbed, but the subcutaneous fat gradually diminishes, until finally the patient falls into a condition of marasmus, and at last dies. At least this was Hebra's experience with thirteen of the first fourteen cases seen by him.

MOLLUSCUM.

Syn: Molluscum contagiosum; Acne varioliformis.

Definition and description.—We confine

the term molluscum to an affection characterized by the development of small tumors of peculiar aspect, scattered more or less freely over the surface. These little tumors, or more properly tubercles, vary from the size of a hemp seed to that of a pea. They are sessile or pedunculated, and each is furnished with a small depression or umbilicus, from which, by pressure, a thickish white substance, like sebum, may be made to protrude. Their color is usually that of the normal skin, but may be a little redder, with sometimes a translucent aspect. The little tubercles are most frequently met with on the face, but are sometimes encountered on the neck, chest, back, limbs, and genitals. Their number varies from three or four to twenty or thirty, or possibly more. They do not appear simultaneously, but successively, coming out one after another for weeks and months, so that in advanced cases they may be encountered in various stages. Having attained a certain size they may so remain for an indefinite period, but after a time usually discharge their contents, dry up, and shrivel away. Sometimes inflammation and suppuration occur. The affection is met with at all ages and in both

sexes, but the majority of cases have been observed in young females. It has been frequently encountered simultaneously in several members of a family, and has thus given rise to the idea that it may be contagious. This point, however, cannot be considered as definitely settled, although the weight of evidence appears to me to be in favor of the contagion theory. The eruption is unaccompanied with pain or other subjective symptoms, and does not appear in any way to influence the general health.

The treatment of molluscum is exceedingly simple. All that is necessary is to destroy the tubercles that are present at the time of the patient's visit, and subsequently a few more that were hardly large enough to be seen the first time. The destruction may be accomplished by shaving off the tubercles at the level of the skin, squeezing out the remainder of their contents, and then applying a nitrate of silver point, or a red-hot needle to the little cavity that remains.

BATEMAN states that the internal use of arsenic is of service. I have never tried it, as the external measures just spoken of are usually sufficient. Sometimes the tubercles

are so closely grouped as to become almost confluent and to form a patch of some size. In these cases, instead of using the knife, their destruction may be effected by the use of alkaline caustics.

CHAPTER XXIII.

PEMPHIGUS.

Pemphigus is a chronic affection of the skin, characterized by the development of bullæ, from the size of a pea to that of an egg, upon any portion of the body. They may be few or numerous, but if many be present at the same time they are sometimes found aggregated in little groups of three or four together. Their contents are usually serous and transparent; but sometimes the admixture of a little pus renders the fluid slightly opaque. Of Pemphigus, one of the older writers described ninety-seven varieties. For present needs, however, two will suffice. These are Pemphigus vulgaris and Pemphigus foliaceus. It will be best to describe them separately.

PEMPHIGUS VULGARIS.

In this form the bullæ, well distended by

fluid, persist unchanged for several days, at the end of which time they rupture, and discharge a thin, not very plastic fluid, differing greatly in this respect from the plastic exudation of eczema. Sometimes the stratum corneum reapplies itself to the skin, and remains in contact until the surface beneath is entirely healed and covered with a new epidermis. It is then shed, and reveals a circumscribed reddened surface, which soon, however, regains its normal color. At other times the covering of the bullæ is detached soon after rupture, and displays a red and oozing surface. This becomes drier as the new-formed, horny layer replaces the old, when the heightened color gradually fades away. After the disappearance of the bullæ, which marked the invasion of the disease, or even before they are completely gone, fresh ones may arise, or, on the other hand, several weeks may elapse before a recurrence takes place. These relapses may prolong the disease for an indefinite period. Finally, either spontaneously or as the result of treatment, no new bullæ appear, and the patient is well. This favorable termination, however, does not always occur; but the affection persist-

ing for several years, the patient is carried off by some intercurrent disease.

PEMPHIGUS FOLIACEUS.

This form differs from the other mainly in the fact that the bullæ are not *filled* with fluid, that is, the epidermic covering is not tense or stretched but somewhat flaccid. The bullæ are often of large size, forming flattish fluid tumors as large as the hand. Bullæ, arising in close proximity to each other, by mutual extension become confluent, and the epidermis at the same time appears to thicken. The eruption may be limited in distribution, or may invade several regions. If the thickened epidermis is stripped off, the reddened surface will be found covered with a whitish exudation resembling a diphtheritic membrane.

Treatment. — Until within a very few years most authorities believed that very little could be done for this affection by internal treatment, and some German writers appear to be of this opinion still.

Hutchinson, however, states that he has been uniformly successful in controlling and curing the affection by means of arsenic. The author, and others in this

country, have had a like favorable experience with this drug in the disease under notice. The drug should be given in full doses, and continued for some time after the eruption has ceased to appear.

The *local* treatment is not without importance. That which I have found most serviceable is to rupture the bulla as soon as it appears, sop up the fluid with a soft rag, and then apply the nitrate of zinc to the raw surface. The pain, at first sharp, soon passes off; the patient suffers little subsequent inconvenience from the lesion. It will, moreover, usually heal in about one-third the time it would take if left alone.

PRURIGO.

Prurigo is a name that has been used in a variety of significations, chiefly to denote a condition of itching or pruritus, arising from a number of causes—in other words, as the name of a symptom rather than of a disease. We here confine it, however, in accordance with present dermatological usage, to a special disease first clearly defined by HEBRA. The disease is quite rare in this country, and the following description is taken from the author just named :

The affection in all cases commences by the appearance of small subepidermic papules, more easily appreciable by touch than by sight, since they rise but little above the level of the skin, and do not differ from it in color. They are always isolated. They give rise to a good deal of irritation, and in consequence of scratching become a little more elevated and of a redder color. Repeated scratching destroys their epidermic covering and permits the discharge of a transparent or yellowish serum, or if the papillæ be wounded the escape of a droplet of blood, which forms a minute blackish crust upon the summit of the papule. As the papules exist in considerable number, this process, repeated in them all, produces the aspect to which the name of ordinary prurigo may be given.

When, however, the affection has lasted some time, new phenomena are added to those already mentioned. Pigmentation of skin, gradually increasing, and corresponding to the location of the scratch-marks, becomes a prominent feature. The natural lines and furrows of the skin become more widely separated, and more distinct than in the normal condition, specially

noticeable about the backs of the hands and wrists. The downy hairs are torn out by scratching, or broken off and disorganized, and the skin itself is harder and thicker than in health.

In severer cases all of these symptoms become exaggerated. The papules are larger, the itching more intense, the excoriations more severe, and the number of blackish blood-crusts increased. In addition we notice a more general brownish pigmentation, and a detachment of the outer layers of the epidermis under the form of a whitish branny desquamation. In some cases a vesicular or pustular eczema may be developed, masking, to a certain extent, the peculiar features of the primary affection.

The disease is exceedingly chronic, and in Hebra's experience persists throughout the whole lifetime of the patient. It does not, however, appear to exert any noxious influence on the general health, or to shorten the life of the unhappy sufferer.

Many of the features of prurigo are common to it, and the various forms of pruritus, as, for instance, the itching, the scratch-marks, and the pigmentation of the surface. On the other hand, the peculiar papules are

pathognomonic, and are sufficient, in connection with the other symptoms, to enable the nature of the affection to be promptly recognized.

HEBRA found the disease incurable ; he nevertheless was able to obtain great amelioration of the condition of the skin by judicious and persistent treatment. Internal medication was useless, but local measures, calculated to soften and hasten the desquamation of the external layers of the skin, were of decided service. Baths of all sorts, warm, cold, or vapor, were of the first importance. In addition, thorough applications of green soap were frequently employed. Sulphur, whether used in baths, ointments, or soap was found very useful, as was also Vlemingkx's Solution. The various preparations of tar were found to possess a marked influence in diminishing the irritation.

Quite recently the internal administration of Jaborandi has been found very beneficial.

PURPURA.

Definition and description.—Purpura is an affection due to localized effusions of blood into the skin, and is characterized by the sudden appearance of small macules

from one-twelfth to one-half inch in diameter on various parts of the surface. A comparatively small number only may be present, or, on the other hand, so many that it would prove tedious to count them. The spots, at the moment of their first appearance, are red, but soon assume a purplish hue. The color is not removable by pressure. After a few days they undergo the changes of color that we are all familiar with in connection with ecchymoses from contusion.

The eruption may be thickly sprinkled over the whole surface, except the face and scalp, which are usually spared. The macules may all appear in a single day, or additions may occur for several successive days. The spots go through their changes and disappear in from one to two weeks. After a variable period a fresh crop may appear, and this may be repeated a number of times.

In some cases hemorrhage from the mucous surfaces takes place, and may be so profuse as to seriously endanger the life of the patient.

In simple Purpura there is, as a rule, a total absence of constitutional symptoms—that is, there is no febrile action either be-

fore or after the eruption. There also absence of pain and itching. The eruption may attack those in a debilitated condition, or those who appear to be in perfect health.

Purpura hemorrhagica, on the other hand, may be preceded by a vague feeling of illness, but without well-defined symptoms. As the disease advances, however, hemorrhages from the nose, mouth, bowels, or bladder may produce serious debility and even prove fatal.

Diagnosis.—The diagnosis of purpura is easy, the only affection with which the inexperienced would be likely to confound it being Scurvy. In Scurvy the gums are swollen and may be ulcerated, and the purple spots are not mere macules but patches of considerable size. In Scurvy there is also swelling of the lower limbs, not a soft œdema, such as occurs in Bright's disease, but a hard, boardy feeling that is rarely met with in any other affection. In Scurvy it is usual also to have more or less debility. The history of the case will also throw light on the diagnosis. Purpura usually comes on without assignable cause, while Scurvy is always the result of improper diet, such

as exclusive confinement to salt food, absence of vegetables, etc.

Prognosis.—In simple purpura the prognosis is usually good, but in the hemorrhagic form there is danger of exhaustion and collapse from loss of blood. The effusions may also invade the tissues of the internal organs, and in this way interfere with the performance of vital functions.

Etiology.—We may frankly say that we do not know the causes that bring about this affection. The disease consists essentially in an effusion of blood from ruptured cutaneous capillaries, or possibly to diapedesis of the red corpuscles, without rupture of the vessel. As immediate causes of this condition some have asserted that the blood was thinner than usual, others that the blood was normal, but that the capillaries were weakened. Both of these assigned causes are theoretical and not based on known facts. Various remote causes have also been suggested, as hepatic congestion (Cauty), internal obstruction (Bateman), enlarged spleen (Fuchs), debility of the nervous powers (Wilson), deficient or suppressed menstruation (Cazenave), etc. The last-mentioned cause we have seen exemplified

in a case in which the purpura partook of the nature of vicarious menstruation, coming on for several months, at the time of, and instead of the natural flow.

Treatment.—The most varied treatment has been recommended for this affection—for instance, iron in large doses, in order to repair the supposed deficiencies in the blood: tannin, gallic acid, the mineral acids, etc., under the idea that they would act as astringents, and many other methods equally irrational and useless.

At present the treatment most in vogue consists in the administration of full doses of ergot, either hypodermically or by the mouth.

CHAPTER XXIV.

SCLERODERMA—SCLERIASIS.

Under these and similar names two different affections have, we think, been described. The affection to which we will confine the first of these appellations commences as a circumscribed infiltration of the skin and subcutaneous tissue. The part affected is slightly elevated, and the skin of

a brownish red color, with a very slight tendency to a furfuraceous desquamation. Upon touching the part it conveys to the finger a sensation of hardness, and the skin is found to be cemented to the subcutaneous tissue, and the whole tightly bound down to the muscles, or to the bones if they are near the surface. If we attempt to pinch up the skin in folds, the effort will be as futile as if we tried to pinch up the paint from a board, or the bark from a tree.

As the lesion gradually advances, the portions first affected undergo a change. The elevation subsides, and gives place to a depression, the heightened color disappears, and is replaced, first by a normal, afterward by a much paler hue, and finally by a glistening white. In other words, the hyperplasia which first appeared is succeeded by atrophy. The tightness of the skin, its close approximation to the bone, and its absolute non-mobility become even more striking than in the early stage. If the lesion be situated upon the hands and feet, the shrunken integument may induce permanent contractions of the fingers and toes, with more or less deformity. Sclerosed bands and patches may appear upon several

parts, and by gradual extension involve a very large portion of the surface.

When limited in extent, scleroderma does not appear to be specially prejudicial to life or health; but when extensive, it may be associated with visceral and other internal changes, capable of inducing a fatal result.

The cause of this affection is unknown.

Internal treatment appears to be without influence in modifying the affection; externally the application of the constant galvanic current has in several instances proved of service.

SCLERIASIS.

This affection is distinguished from the one last described by the rapidity of its development, and the extent of surface that may become involved within even a few days. Commencing usually, if not always, upon the upper portion of the body, the integument of the thorax and abdomen and the posterior portions of the trunk may become involved in a week or ten days, without extension to the lower extremities. The skin preserves its natural color and sensation, but is tightly bound down to the subjacent tissues as in the former affection.

After a time, in the majority of cases, spontaneous resolution occurs, and the skin returns to the normal state.

VITILIGO.

SYN.—Leucoderma.

Definition and description.—Vitiligo is an affection characterized by a localized disappearance of the cutaneous pigment. It becomes noticeable by the development of one or more small pigmentless spots, the color of which varies from a dead white to a faint rosy hue, the particular tint depending on the activity of the circulation in the affected part. The hair, if there be any on the spot, loses its color and becomes white. Surrounding these pale patches there is frequently a border characterized by increased pigmentary deposit which gradually shades off into the hue of the normal surrounding skin. The appearance of one spot is usually followed by the development of others. The spots usually for a time increase in size and unite with neighboring ones after forming an irregular patch of considerable extent. A considerable and even the major part of the surface may be thus invaded. With the exception of the loss of color, the affected

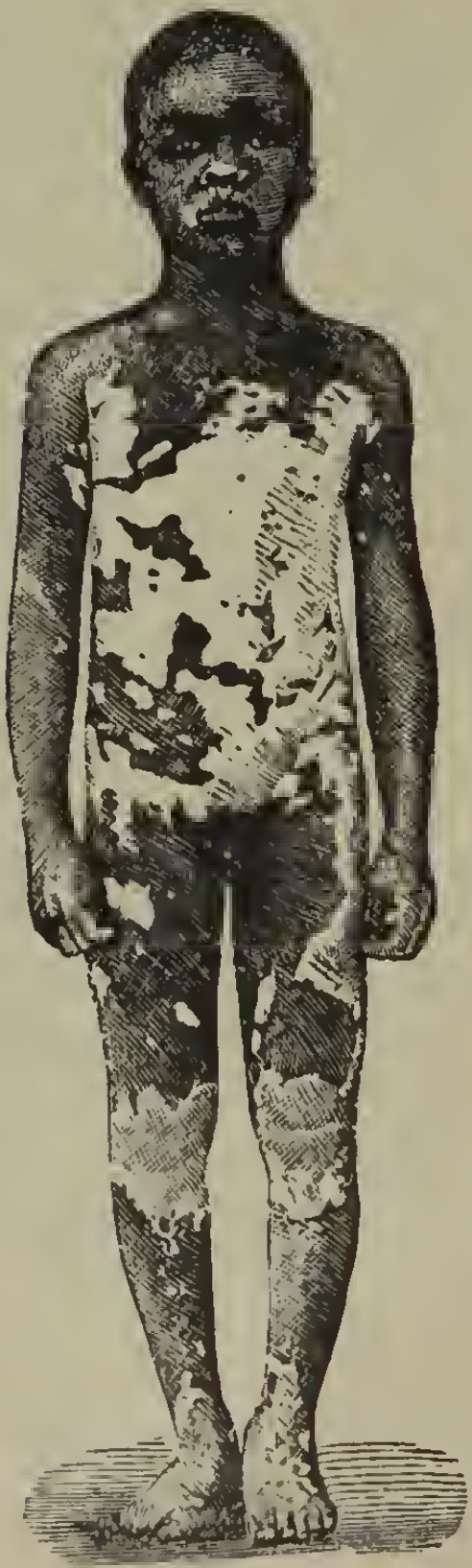


FIG. 25.—VITILIGO.

portions do not present any other anomaly, but appear to preserve their various functions unaltered. The parts most frequently affected are, in my experience, the hands, face, neck, and genitals.

The affection, once developed, may continue for an indefinite period, or after a time come to a standstill and remain in that condition for many years. Occasionally, spontaneous recovery may take place, that is, the skin may recover its normal coloration. This I have seen, and in one patient alternations of vitiligo and normal color has occurred a number of times.

The affection affects the negro as well as the caucasian, and probably also the races of intermediate tint. I have never met with the affection in childhood in the white race, but have seen it from early adult life to old age.

The affection can be confounded with but one or two others. These are partial albinism and certain phases of macular leprosy. Albinism, when complete, consists in a *congenital* diffuse absence of pigment; when partial, of congenital white spots surrounded by skin of normal hue. Vitiligo, on the other hand, is an *acquired* affection. The

history of the case will be sufficient to determine the diagnosis. I have seen a case of macular leprosy in which there was a not very distant resemblance to Vitiligo, and I can readily imagine that there may be cases in which the likeness would be still more striking. The history of the case, however, and a close examination of the lesion, together with the fact that the white patches of leprosy are anæsthetic, will obviate any difficulties in the way of diagnosis.

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